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ANNUAL STATISTICAL ISSUE

AUTOMOTIVE INDUSTRIES

Vital Statistics

WE present in the following pages the statistical picture of the automotive industries for 1936. Thousands of men in these industries will find in these figures an intelligent basis for future planning, whether in engineering or merchandising.

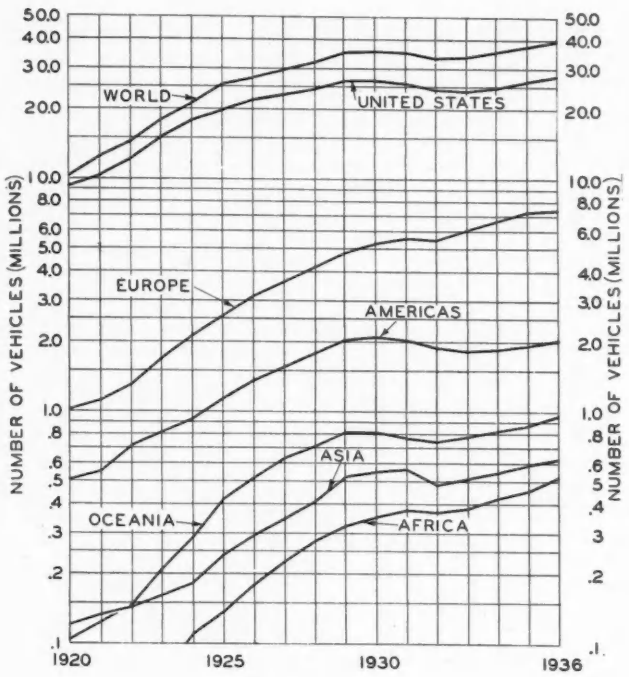
To one question of overwhelming current interest you will find no answer in the 1936 figures. How much did the recent strikes cost General Motors, its suppliers and workers?

Perhaps we shall never know the complete answer to that.

But we do know that Michigan payrolls dropped 17 per cent in January as compared to December, and that workers lost something like $1 million a day in wages during the period of the strike.

General Motors has released no figures on the cost to the corporation of 43 days of curtailed activity. Perhaps the corporation will never know the full cost, when the intangible losses are included.

The vital statistics of strikes and their economic effects deserve wider attention and broader study by all agencies concerned with them.—H. H.



U. S. and World
Highest

This Chart Shows the Registrations of Motor Vehicles by Continental Divisions of the World.

U. S. Motor Vehicle Registrations by States

As of December 31, 1936, and 1935

STATE	Passenger Cars 1936	Passenger Cars 1935	Trucks 1936	Trucks 1935	Buses 1936	Buses 1935	Total Registered Motor Vehicles 1936	Total Registered Motor Vehicles 1935	Per Cent Increase	Per Cent of Total 1936	Per Cent of Total 1935	Persons per Motor Vehicle 1936
Alabama[1]	226,444	202,218	41,272	38,985	426	a1,001	271,142	242,204	12.0	.97	.92	10.51
Arizona	94,473	84,826	20,183	17,934	a379	a332	115,035	103,122	11.5	.41	.39	3.52
Arkansas	169,652	168,314	50,131	42,789	b	.....	219,783	211,103	4.0	.78	.80	9.16
California[2]	2,142,055	2,015,018	146,679	135,722	b	b	2,288,734	2,150,740	6.3	8.15	8.20	2.67
Colorado	277,764	256,148	29,894	28,430	c	c	307,658	284,578	8.0	1.10	1.09	3.46
Connecticut	345,000	316,864	49,000	49,680	870	571	394,870	366,115	8.0	1.41	1.40	4.37
Delaware	49,550	46,794	10,010	9,592	c	c	59,560	56,486	6.3	.21	.22	4.34
Dist. of Columbia	193,000	152,632	19,000	17,239	1,230	986	213,230	170,907	24.7	.76	.65	2.85
Florida	320,490	299,045	63,884	55,745	2,531	2,483	386,905	358,253	8.0	1.38	1.37	4.22
Georgia	337,857	328,017	73,239	66,079	b	b	411,126	394,096	4.2	1.46	1.50	7.41
Idaho	107,060	96,778	25,852	21,371	125	117	133,037	118,266	12.4	.47	.45	3.63
Illinois	1,459,195	1,342,904	208,925	190,848	c	c	1,668,121	1,533,752	8.8	5.94	5.85	4.70
Indiana	766,269	716,994	131,767	132,767	995	839	899,031	850,650	5.7	3.20	3.24	3.83
Iowa	643,084	617,021	82,840	79,514	b	b	725,924	696,535	4.2	2.58	2.66	3.48
Kansas	490,793	473,038	87,113	80,068	c	c	577,906	553,106	4.4	2.06	2.11	3.25
Kentucky	315,000	303,593	50,000	43,613	.....	470	365,000	347,676	5.1	1.30	1.33	7.86
Louisiana	230,935	211,087	76,251	61,963	b	b	307,186	273,050	12.5	1.09	1.04	6.93
Maine	150,809	142,961	39,276	36,189	152	125	190,237	179,275	6.2	.68	.68	4.46
Maryland	323,115	296,148	53,398	47,531	949	902	377,462	344,581	9.6	1.34	1.31	4.47
Massachusetts	708,966	680,537	102,400	100,607	4,814	4,528	816,180	785,672	4.0	2.91	3.00	5.40
Michigan	1,237,997	1,112,148	139,520	127,283	c	c	1,377,517	1,239,431	11.1	4.90	4.73	3.46
Minnesota	668,915	620,891	114,448	105,639	264	241	783,627	726,771	7.9	2.79	2.77	3.36
Mississippi	159,051	152,893	43,357	33,306	a1,048	.....	203,456	186,199	9.0	.72	.71	9.86
Missouri	681,190	650,141	128,425	116,228	c	c	809,615	766,369	5.5	2.88	2.92	4.86
Montana	127,839	114,170	39,311	35,542	c	c	167,150	149,712	11.8	.60	.57	3.17
Nebraska	353,435	347,311	62,133	60,247	302	345	415,870	407,903	2.0	1.48	1.56	3.28
Nevada	30,829	28,179	7,680	7,256	c	c	38,509	35,435	8.9	.14	.14	3.54
New Hampshire	97,500	93,699	23,500	23,455	c	c	121,000	117,154	3.3	.43	.45	4.18
New Jersey	807,552	757,490	130,642	125,121	5,218	5,000	943,412	887,611	6.3	3.36	3.38	4.58
New Mexico	85,169	73,837	22,731	18,245	479	375	108,379	92,457	17.2	.39	.34	3.90
New York	2,116,522	2,006,181	326,404	315,119	a35,093	a33,542	2,478,019	2,354,842	5.3	8.82	8.98	5.23
North Carolina	437,000	398,017	65,000	64,657	400	323	502,400	462,997	8.4	1.79	1.77	6.84
North Dakota	137,523	135,366	29,650	28,780	68	71	167,241	164,217	1.9	.60	.63	4.19
Ohio[5]	1,604,775	1,521,076	172,273	165,801	c	c	1,777,048	1,686,877	5.1	6.33	6.43	3.78
Oklahoma	438,804	416,939	90,638	82,854	a2,473	2,307	531,915	502,100	6.0	1.89	1.91	4.74
Oregon	277,437	270,899	49,746	25,569	693	644	327,876	297,112	10.2	1.17	1.13	3.19
Pennsylvania	1,631,721	1,530,838	249,637	228,994	a5,868	a5,572	1,887,226	1,765,404	6.9	6.72	6.73	5.37
Rhode Island	140,393	130,156	19,458	19,250	482	500	160,333	149,906	6.9	.57	.57	4.25
South Carolina	217,690	206,158	33,525	29,761	.....	.....	251,215	235,919	6.1	.89	.90	7.38
South Dakota	158,192	152,280	28,172	28,910	72	60	186,436	179,250	4.0	.66	.68	3.71
Tennessee[3]	318,922	308,113	49,368	42,127	a2,184	a2,021	370,474	352,261	5.0	1.32	1.34	7.69
Texas	1,187,313	1,113,252	285,839	251,997	834	768	1,473,986	1,366,017	8.0	5.25	5.21	4.13
Utah[4]	113,000	85,497	22,000	21,113	679	651	135,679	107,261	26.8	.48	.41	3.81
Vermont	74,520	71,705	8,682	8,868	111	98	83,313	80,671	4.1	.30	.31	4.55
Virginia[6]	345,503	318,340	57,689	59,163	595	511	403,787	378,014	6.8	1.44	1.44	6.57
Washington	419,877	384,561	79,500	68,678	699	632	500,076	453,871	10.5	1.78	1.73	3.27
West Virginia[7]	216,652	210,329	36,908	29,132	612	551	254,172	240,012	5.9	.90	.92	7.17
Wisconsin	670,172	613,775	150,779	135,378	654	449	821,605	749,602	9.8	2.93	2.86	3.54
Wyoming	61,325	55,537	15,592	14,678	b	b	76,917	70,215	9.5	.27	.27	3.03
TOTAL	24,168,329	22,630,715	3,846,752	3,527,997	71,299	67,045	28,086,380	26,225,757	7.0	100.00	100.00	4.84

a—Includes taxicabs.
b—Included with passenger cars.
c—Included with trucks.
1—For fiscal year ending Sept. 30.
2—Passenger cars include approximately 120,000 light commercial vehicles in 1936 and 117,000 in 1935.
3—Totals for 9 months as fiscal year ends March 31.
4—1935 data for fiscal year ending Mar. 1, 1936, data for 10 months ending Dec. 31, 1936.
6—From March 15 to Dec. 31.
7—From July 1, 1935 to June 30, 1936.

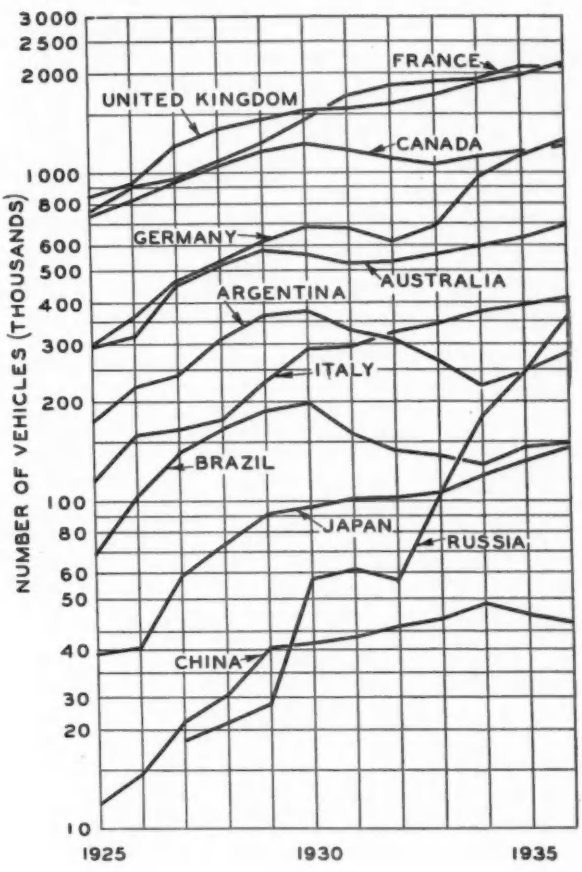
Registrations in History

Motorcycle and Trailer Registrations

State	Motorcycles		Trailers and Semitrailers	
	1936	1935	1936	1935
Alabama	695	694	4,353	5,586
Arizona	345	356	3,302	2,835
Arkansas	423	425	10,746	9,398
California	9,602	8,880	111,062	95,233
Colorado	1,038	901	1,410	968
Connecticut	1,902	2,021	4,019	3,092
Delaware	242	254	2,227	1,863
District of Columbia	796	675	1,815	1,377
Florida	1,000	979	13,472	11,256
Georgia	1,002	952	11,903	10,823
Idaho	472	407	13,000	12,925
Illinois	5,924	4,568	18,408	14,439
Indiana	3,443	3,107	52,591	43,013
Iowa	2,072	1,955	4,856	a 50,244
Kansas	718	678	5,070	4,045
Kentucky	900	912	c	c
Louisiana	825	734	12,315	9,196
Maine	926	997	8,841	d 8,464
Maryland	1,453	1,435	3,224	1,750
Massachusetts	1,316	1,379	10,405	507
Michigan	3,234	3,024	120,009	102,975
Minnesota	1,894	1,823	26,569	24,260
Mississippi	200	172	1,237	809
Missouri	1,631	1,607	26,821	22,550
Montana	416	380	1,829	2,256
Nebraska	959	998	1,472	20,461
Nevada	115	109	1,053	847
New Hampshire	1,000	1,082	4,000	3,173
New Jersey	4,739	4,826	5,645	4,431
New Mexico	299	247	2,034	889
New York	11,158	10,396	31,098	23,451
North Carolina	1,300	1,320	32,000	29,389
North Dakota	251	242	517	215
Ohio	7,914	7,095	103,308	95,216
Oklahoma	1,049	968	6,960	6,452
Oregon	1,425	1,393	4,853	3,558
Pennsylvania	11,914	10,115	24,737	19,732
Rhode Island	771	720	399	216
South Carolina	745	762	3,181	2,759
South Dakota	409	330	19,349	12,568
Tennessee	1,318	1,261	1,000	836
Texas	3,544	3,372	41,660	38,262
Utah	450	409	1,100	1,226
Vermont	545	575	1,450	1,321
Virginia	1,732	1,837	6,240	3,694
Washington	1,773	1,640	12,059	7,776
West Virginia	1,105	1,007	2,277	2,189
Wisconsin	3,136	2,554	4,875	7,610
Wyoming	200	195	8,542	7,279
Total	100,320	92,768	789,293	733,414

a—Includes 46,250 light trailers licensed without charge.
c—Included with trucks. d—Light trailers only, heavy with trucks.

Registrations by Countries



U. S. Registrations 71 Per Cent of World

	Motor Vehicles	Cars*	Trucks*	Buses*	Motorcycles*
Americas (less U. S. A.)	2,005,521	1,586,321	391,278	27,872	18,411
Africa	519,492	417,373	98,139	.....	52,613
Asia	622,159	379,710	185,396	57,053	89,721
Europe	7,626,533	5,345,315	2,014,022	142,196	2,196,353
Oceania	961,842	724,142	237,100	.....	100,036
World Total (less U. S. A.)	11,735,547	8,452,861	2,925,935	227,121	2,457,134
United States†	28,086,380	24,168,329	3,846,752	71,299	100,320
World Total—1936	39,821,927	32,621,190	6,772,687	298,420	2,557,454
World Total—1935	37,234,731	30,767,164	6,267,821	278,116	2,412,247

* Incomplete for all territories.
† Automotive Industries. All others The American Automobile (Overseas Edition).

World Motor Vehicle Registration by Years

	1930	1931	1932	1933	1934	1935	1936
Africa	351,931	370,880	369,814	383,227	425,573	466,603	519,492
America (less U.S.A.)	2,097,289	2,013,977	1,896,380	1,827,754	1,860,135	1,917,676	2,005,521
Asia	551,467	566,353	486,292	506,925	546,201	597,601	622,159
Europe	5,287,472	5,586,320	5,498,704	6,052,758	6,656,012	7,136,425	7,626,533
Oceania	805,545	772,287	740,016	778,856	826,711	890,669	961,842
Total	9,093,704	9,309,817	8,991,206	9,549,520	10,314,632	11,008,974	11,735,547
United States†	26,657,072	25,993,896	24,341,822	23,849,932	24,881,467	26,225,757	28,086,380
World Total	35,750,776	35,303,713	33,333,028	33,399,452	35,196,099	37,234,731	39,821,927

†Automotive Industries, all others *The American Automobile* (Overseas Edition). See page 270 for chart.

World Registrations by Continental Divisions and Countries

By Special Arrangement with *El Automovil Americano* and *The American Automobile* (Overseas Edition)

THE AMERICAS

COUNTRY	Motor Vehicles	Cars	Trucks	Buses	Motor-Cycles
Alaska	3,407	2,435	972	...	...
Antigua	322	260	50	12	30
Argentina	276,403	213,475	55,865	7,063	...
Bahamas	1,025	850	175	...	40
Barbados	2,400	1,900	500	...	...
Bermuda	50	...	...	...	...
Bolivia	4,000	1,000	3,000	...	...
Brazil	149,000	93,670	51,410	3,920	1,600
British Honduras	241	150	91	...	2
Canada	1,221,587	1,036,048	183,786	1,753	10,913
Chile	35,130	24,680	9,222	1,228	700
Colombia	18,625	12,100	5,150	1,375	200
Costa Rica	2,707	1,916	530	261	95
Cuba	39,752	23,758	13,247	2,747	292
Dominica	97	67	30	...	16
Dominican Republic	2,775	1,950	825	...	150
Ecuador	3,242	1,750	1,175	317	102
Grenada	513	382	131	...	...
Guadeloupe	2,100	1,600	500	...	...
Guatemala	2,825	1,825	1,000	...	200
Guiana	2,100	1,600	500	...	...
Haiti	3,180	2,600	300	280	40
Honduras	1,500	1,050	450	...	30
Jamaica	10,918	8,530	2,238	150	528
Martinique	2,800	2,200	600	...	100
Mexico	105,391	68,191	32,650	4,550	1,605
Neth. W. Indies	3,268	1,878	896	494	159
Newfoundland	4,214	3,326	873	15	150
Nicaragua	775	575	200	...	7
Panama	10,500	9,325	1,175	...	60
Paraguay	2,000	952	671	377	...
Peru	18,299	11,000	6,497	802	...
Puerto Rico	18,453	14,504	3,949	...	181
Salvador	2,650	2,000	650	...	...
St. Lucia	223	177	22	24	22
St. Pierre & Miquelon	120	49	71	...	12
St. Vincent	241	184	28	29	27
Trinidad & Tobago	6,500	4,400	1,625	475	1,000
United States	28,086,380	24,168,329	3,846,752	71,299	100,320
Uruguay	27,238	21,789	4,449	1,000	...
Venezuela	18,000	11,500	5,500	1,000	150
Virgin Islands	600	400	200	...	...
West Indies	350	275	75	...	...
Total, 1936	30,091,901	*25,754,650	*4,238,030	*99,171	*118,731
†Total, 1936	2,005,521	*1,586,321	*391,278	*27,872	*18,411
Total, 1935 (Revised)	28,084,783	*24,112,536	*3,881,470	*92,425	*114,529
†Total, 1935 (Revised)	1,917,676	*1,521,876	*370,409	*26,039	*18,896
Increase	2,007,118 or 7 per cent				

† Not including United States * Not complete for all territories

EUROPE

COUNTRY	Motor Vehicles	Cars	Trucks	Buses	Motor-Cycles
Albania	1,010	510	375	125	35
Austria	44,372	27,452	14,702	2,218	56,975
Azores	880	750	130	...	115
Belgium	197,435	124,183	72,279	973	62,000
Bulgaria	4,000	2,000	2,000	...	575
Czechoslovakia	103,526	77,569	22,773	3,184	50,000
Danzig Free City	2,795	1,975	765	55	2,200
Denmark	135,467	95,318	40,149	...	27,192
Esthonia	3,800	2,100	1,700	...	1,200
Faroe Islands	100	50	50	...	...
Finland	35,950	20,500	13,500	1,950	4,900
France	2,100,000	1,600,000	500,000	...	...
Germany	1,243,084	945,085	282,432	15,567	1,184,081
Gibraltar	1,050	875	125	50	1,075
Great Britain	2,128,036	1,604,948	438,565	84,523	479,075
Greece	14,500	7,500	7,000	...	550
Holland	142,000	90,100	48,000	3,900	50,000
Hungary	15,200	10,950	4,250	...	9,500
Iceland	1,550	600	950	...	...
Irish Free State	55,548	45,211	9,444	893	4,000
Italy	415,000	290,000	115,000	10,000	145,000
Latvia	4,158	2,231	1,668	259	1,009
Lithuania	1,980	1,330	370	280	1,170
Luxemburg	11,460	7,204	4,062	194	3,024
Malta	4,738	3,010	867	861	461
Monaco	1,833	1,434	305	94	144
Northern Ireland	40,572	30,958	8,081	1,533	3,385
Norway	72,611	42,321	27,415	2,875	9,052
Poland	26,200	19,000	5,500	1,700	8,700
Portugal	42,000	30,050	10,300	1,650	3,900
Rumania	24,000	17,500	3,500	3,000	2,250
Spain	125,000	...	...	...	...
Sweden	168,700	116,700	47,900	4,100	46,000
Switzerland	92,346	70,662	20,398	1,286	35,000
U. S. S. R. (Russia)	352,820	46,395	306,425	...	...
Yugoslavia	12,812	8,844	3,042	926	3,785
Total, 1936	7,626,533	*5,345,315	*2,014,022	*142,196	*2,196,353
Total, 1935 (Revised)	7,136,425	5,197,939	*1,860,877	*134,677	*2,056,735
Increase	490,108 or 6.8 per cent.				

*Not complete for all territories

AFRICA

COUNTRY	Motor Vehicles	Cars	Trucks-Buses	Motor-cycles
Algeria	62,000	53,000	9,000	4,500
Angola	3,375	1,450	1,925	180
Basutoland	602	452	150	13
Bechuanaland	411	318	93	39
Belgian Congo	5,080	2,662	2,418	1,362
British East Africa	20,000	13,000	7,000	3,200
British West Africa	14,014	5,356	8,658	1,400
Canary Islands	3,980	...	...	...
Egypt	28,000	23,500	4,500	3,000
French Equaitorial Africa	1,265	527	738	225
French West Africa	11,694	4,720	6,974	967
Liberia	125	50	75	...
Madeira	1,110	720	390	10
Madagascar and Reunion	4,900	4,000	900	...
Mauritius	2,620	2,125	495	241
Morocco	30,000	22,000	8,000	1,850
Nyasaland	1,293	774	519	563
Portuguese East Africa	4,521	2,723	1,798	882
Rhodesia	16,724	13,278	3,446	1,000
Seychelles	80	70	10	...
Somalilands and Eritrea	900	500	400	...
South West Africa	3,663	2,777	886	115
Sudan	3,715	1,665	2,050	...
Swaziland	560	435	125	96
Tangier	1,000	800	200	...
Tripolitania	1,025	475	550	170
Tunisia	16,610	14,100	2,510	1,800
Union of South Africa	280,225	245,896	34,329	31,000
Total, 1936	519,492	*417,373	*98,139	*52,613
Total 1935 (Revised)	466,603	*373,205	*75,684	*52,492
Increase	52,889 or 11 per cent			

*Not complete for all territories

ASIA

COUNTRY	Motor Vehicles	Cars	Trucks	Buses	Motor-cycles
Afghanistan	3,000	500	2,500	...	...
Arabia	3,180	1,703	1,407	70	26
British Malaya	38,750	28,250	10,500	...	500
Brunei	223	100	105	18	40
Ceylon	25,447	18,985	3,903	2,559	3,047
China	44,750	23,750	13,500	7,500	...
Cyprus	4,675	2,625	2,050	...	300
French Indo China	15,547	12,421	1,474	1,652	1,500
Hong Kong	4,450	3,300	950	200	275
India	166,611	117,016	16,386	33,209	13,476
Iran (Persia)	10,000	3,000	7,000	...	...
Iraq	5,200	3,700	1,400	100	90
Japanese Empire	147,200	66,700	80,500	...	52,000
Macao	407	229	103	75	31
Manchukuo	8,950	4,350	4,600	...	800
Netherlands East Indies	62,184	44,190	10,675	7,319	11,964
Palestine	11,100	6,000	4,000	1,100	3,500
Philippine Islands	45,167	28,073	17,094	...	532
Siam	9,312	5,213	1,786	2,313	422
Syria	7,766	5,930	1,488	348	618
Trans-Jordan	490	275	175	40	...
Turkey	7,750	3,400	3,800	550	600
Total, 1936	622,159	*379,710	*185,396	*57,053	*89,721
Total, 1935 (Revised)	597,601	*367,192	*174,021	*50,355	*92,034
Increase	24,558 or 4 per cent				

* Not complete for all territories

OCEANIA

	Motor Vehicles	*Cars	*Trucks	Buses	*Motor-cycles
Australia	690,000	511,000	179,000	...	77,000
Cook Islands	93	46	47	...	5
Fiji Islands	1,600	1,000	600	...	125
French Oceania	600	425	175	...	25
Hawaii	53,188	42,934	10,254	...	498
New Guinea	602	373	229	...	38
New Zealand	214,849	168,198	46,651	...	22,347
Other Oceania	600	...	...	...	...
Samoa	310	166	144	...	...
Total, 1936	961,842	*724,142	*237,100	...	*100,036
Total, 1935 (Revised)	890,669	*676,237	*213,833	...	99,322
Increase	71,173 or 8 per cent				

* Not complete for all territories

State Taxes Averaged $36 Per Motor Vehicle in 1936

	State Tax per Gallon, Cents	State Gasoline Tax Receipts 1936	State Gasoline Tax Receipts 1935	Per Cent Increase	State Registration Fees 1936	State Registration Fees 1935	Per Cent Increase	Total State Tax Receipts from Gasoline and Registration Fees 1936	Total State Tax Receipts from Gasoline and Registration Fees 1935	State Tax per Motor Vehicle 1936	State Tax per Motor Vehicle 1935
Alabama	6	$11,183,642	$10,269,346	9.0	$2,671,297	$3,527,781	−24.4	$13,854,939	$13,797,127	$51.10	$57.00
Arizona	5	3,928,994	3,277,884	20.0	964,313	848,146	13.6	4,893,307	4,126,030	42.54	40.00
Arkansas	6½	9,154,144	8,193,206	11.9	2,775,139	2,525,672	9.5	11,929,283	10,718,878	54.27	50.75
California	3	42,000,000	39,971,405	5.1	11,771,959	10,562,502	11.4	53,771,959	50,533,907	23.49	23.50
Colorado	4	6,556,000	6,009,533	9.1	2,300,000	2,206,930	4.5	8,856,000	8,216,463	28.79	28.90
Connecticut	3	7,500,000	5,618,123	33.3	6,000,000	8,392,408	−28.3	13,500,000	14,010,531	34.18	38.25
Delaware	4	1,887,218	1,476,432	27.9	1,035,630	1,011,520	2.1	2,922,848	2,487,952	49.07	44.15
District of Columbia	2	2,500,000	2,197,209	14.0	1,000,000	904,901	10.4	3,500,000	3,102,110	16.41	18.15
Florida	7	18,822,643	17,865,732	5.3	5,223,991	4,864,764	7.4	24,046,634	22,730,496	62.15	56.20
Georgia	6	17,482,435	15,771,723	11.0	1,304,301	1,248,278	4.8	18,786,736	17,020,001	45.70	43.15
Idaho	5	3,695,532	3,122,744	18.2	2,260,336	1,879,602	20.2	5,955,868	5,002,346	44.77	42.30
Illinois	3	33,435,476	30,060,184	11.3	18,895,501	19,075,621	− 0.8	52,330,977	49,135,805	31.37	32.00
Indiana	4	20,693,418	18,863,788	10.0	8,439,101	8,284,904	2.0	29,132,519	27,148,692	32.40	31.95
Iowa	3	12,306,783	11,548,635	6.7	10,714,421	9,921,731	8.0	23,021,204	21,470,366	31.71	30.80
Kansas	3	9,372,166	8,830,647	6.1	3,712,113	3,495,576	6.0	13,084,279	12,326,223	22.64	22.30
Kentucky	5	11,000,000	9,835,518	12.0	4,000,000	3,507,149	14.1	15,000,000	13,342,667	41.10	38.40
Louisiana	7	12,121,737	9,345,443	30.0	4,054,823	3,563,380	13.9	16,176,560	12,908,823	52.66	47.25
Maine	4	5,202,098	4,572,586	13.8	3,560,991	3,269,770	8.9	8,763,089	7,842,356	46.06	43.70
Maryland	4	8,915,919	8,278,025	8.0	4,240,384	4,099,850	3.5	13,156,303	12,377,875	34.85	35.90
Massachusetts	3	19,420,304	17,334,090	12.0	6,765,751	6,320,396	7.0	26,186,055	23,654,486	32.08	30.10
Michigan	3	25,691,821	22,785,442	13.0	19,736,837	17,594,552	12.2	45,428,658	40,379,994	32.98	32.57
Minnesota	3	11,869,541	11,126,710	6.5	7,997,199	7,175,323	11.4	19,866,740	18,302,033	25.35	25.20
Mississippi	6	8,982,712	7,512,175	19.5	1,969,691	1,740,856	13.2	10,952,403	9,253,031	53.83	49.60
Missouri	2	11,071,722	9,729,408	13.8	8,985,413	8,350,511	7.5	20,057,135	18,079,919	24.77	23.60
Montana	5	4,481,173	3,844,542	16.6	1,300,000	1,271,299	2.2	5,781,173	5,115,841	34.59	34.20
Nebraska	5	11,218,249	9,712,186	15.5	2,138,832	1,936,644	7.0	13,357,081	11,710,830	32.12	28.70
Nevada	4	1,000,000	961,844	4.0	261,835	282,464	− 0.3	1,261,835	1,224,308	32.77	34.60
New Hampshire	4	3,300,000	2,868,166	15.0	2,300,000	1,649,680	39.2	5,600,000	4,517,826	46.26	38.60
New Jersey	3	19,000,000	18,179,480	4.6	17,310,686	16,629,209	4.1	36,310,686	34,808,689	38.49	39.20
New Mexico	5	3,388,494	2,859,296	18.7	1,300,000	1,108,714	17.4	4,688,494	3,968,010	43.26	42.95
New York	3	55,649,811	56,251,704	− 1.0	45,868,441	43,487,810	5.5	101,518,252	99,739,514	40.97	42.40
North Carolina	6	19,500,000	18,359,084	6.2	6,750,000	6,614,212	2.0	26,250,000	24,973,296	52.25	54.00
North Dakota	3	2,245,177	2,322,611	− 3.1	1,414,460	1,381,482	2.5	3,659,637	3,704,093	21.88	22.55
Ohio	4	40,000,000	39,168,786	2.1	22,500,000	22,153,123	1.8	62,500,000	61,321,909	35.17	36.40
Oklahoma	4	13,215,744	11,873,923	11.3	4,139,239	3,861,366	7.1	17,354,983	15,735,289	32.63	31.35
Oregon	5	9,200,991	7,938,443	16.0	2,805,255	2,761,904	1.5	12,006,246	10,700,347	36.62	36.05
Pennsylvania	4	49,374,535	40,706,631	21.0	35,440,297	32,155,367	10.0	84,814,832	72,861,998	44.94	41.25
Rhode Island	2	2,236,089	2,102,500	6.3	2,599,063	2,416,154	7.6	4,835,132	4,518,654	30.16	30.20
South Carolina	6	9,517,432	8,584,144	11.0	2,055,716	1,849,510	11.3	11,573,148	10,432,654	48.07	44.20
South Dakota	4	4,067,781	4,200,994	− 3.1	1,514,289	1,371,026	10.6	5,582,070	5,572,020	29.94	31.05
Tennessee	7	17,694,639	14,966,016	18.0	3,517,158	3,533,502	− 0.4	21,211,797	18,499,518	37.25	52.50
Texas	4	37,664,823	33,598,821	12.1	17,570,538	15,788,234	11.0	55,235,361	49,387,055	37.47	36.20
Utah	4	3,000,000	2,713,678	10.8	975,000	1,071,489	− 9.0	3,975,000	3,785,167	29.30	35.30
Vermont	4	2,149,638	2,048,561	5.0	2,242,455	2,300,049	− 2.4	4,392,093	4,348,610	52.72	53.90
Virginia	5	14,713,954	13,340,505	10.1	5,634,726	5,150,755	9.2	20,348,680	18,491,260	50.39	48.90
Washington	5	14,167,621	12,557,308	13.0	2,864,431	3,399,406	−15.8	17,032,052	15,956,714	34.05	35.20
West Virginia	4	6,102,941	6,095,663	0.2	4,211,458	4,514,993	− 6.6	10,314,399	10,610,656	40.58	44.20
Wisconsin	4	17,831,862	16,071,207	11.0	12,275,782	10,897,032	12.8	30,107,644	26,968,239	36.64	35.95
Wyoming	4	2,400,000	1,929,650	24.6	540,616	482,868	12.0	2,940,616	2,412,518	38.23	34.35
Total		$677,915,239	$616,851,671	9.9	$339,909,468	$322,481,415	5.4	$1,017,824,707	$939,333,086	*$36.24	$35.80

* With Federal and other taxes this amounts to about $48.00 in 1936, and $47.00 in 1935.

U. S. Motor Vehicle Registrations, By Years

	Passenger Cars	Trucks and Buses	Total Motor Vehicles		Passenger Cars	Trucks and Buses	Total Motor Vehicles
1895	4	.....	4	1918	5,621,617	525,000	6,146,617
1896	16	.....	16	1919	6,771,074	794,372	7,565,446
1897	90	.....	90	1920	8,225,859	1,006,082	9,231,941
1898	800	.....	800	1921	9,346,195	1,118,520	10,464,715
1899	3,200	.....	3,200	1922	10,864,128	1,375,725	12,239,853
1900	8,000	.....	8,000	1923	13,479,608	1,612,569	15,092,177
1901	14,800	.....	14,800	1924	15,460,649	2,134,724	17,595,373
1902	23,000	.....	23,000				
1903	32,920	.....	32,920	1925	17,496,420	2,440,854	19,937,274
1904	54,590	410	55,000	1926	19,237,171	2,764,222	22,001,393
				1927	20,219,224	2,914,019	23,133,243
1905	77,400	600	78,000	1928	21,379,125	3,113,999	24,493,124
1906	105,900	1,100	107,000	1929	23,121,589	3,379,854	26,501,443
1907	140,300	1,700	142,000	1930*	23,183,241	3,473,831	26,657,072
1908	194,400	3,100	197,500	1931*	22,567,381	3,426,515	25,993,896
1909	305,950	6,050	312,000	1932*	21,139,092	3,202,730	24,341,822
1910	458,500	10,000	468,500	1932*	20,557,493	3,292,439	23,849,932
1911	619,500	20,000	639,500	1934*	21,535,199	3,346,268	24,881,467
912	902,600	41,400	944,000				
1913	1,194,262	63,800	1,258,062	1935*	22,630,715	3,595,042	26,225,757
1914	1,625,739	85,600	1,711,339	1936*	24,168,329	3,918,051	28,086,380
1915	2,309,666	136,000	2,445,666				
1916	3,297,996	215,000	3,512,996				
1917	4,657,340	326,000	4,983,340				

*Automotive Industries count, all others Bureau of Public Roads.

World Production of Motor Vehicles

	1934*			1935*			1936**		
	Passenger Cars	Trucks & Buses	Total	Passenger Cars	Trucks & Buses	Total	Passenger Cars	Trucks & Buses	Total
United States	2,177,919	575,192	2,753,111	3,252,244	694,690	3,946,934	3,676,063	778,472	4,454,535
Canada	92,647	24,205	116,852	135,562	37,315	172,877	131,308	31,014	162,322
Total	2,270,566	599,397	2,869,963	3,387,806	732,005	4,119,811	3,807,371	809,486	4,616,857
Austria	975	380	1,355	1,788	721	2,509	2,000	1,000	3,000
Belgium	500	240	740	463	290	753	1,000	450	1,450
Czechoslovakia	9,110	890	10,000	9,195	783	9,978	10,000	2,000	12,000
Denmark	.....	182	182	.....	148	148	.....	.....	§
France	172,328	29,316	201,644	156,010	23,260	179,270	160,500	27,500	188,000
Germany	147,330	25,684	173,014	201,438	41,496	242,934	220,000	51,000	271,000
Hungary	19	203	222	.....	111	111	.....	.....	§
Italy	38,907	4,509	43,416	40,236	4,972	45,208	40,000	5,000	45,000
Japan	930	1,915	2,845	5,020	1,780	6,800	1,500	1,500	3,000
Poland	200	600	800	488	300	788	.....	.....	§
Soviet Russia	17,100	55,366	72,466	19,200	77,800	97,000	4,500	115,000	119,500
Spain	100	730	830	96	495	591	.....	.....	§
Sweden	600	2,522	3,122	790	2,614	3,404	.....	.....	4,075
Switzerland	16	420	436	.....	460	460	.....	.....	§
United Kingdom†	265,672	89,134	354,806	325,194	91,721	416,915	353,743	107,609	461,352
Total (Foreign)	653,787	212,091	865,878	759,918	246,951	1,006,869	‡ 793,243	‡ 311,059	1,110,877
World Total	2,924,353	811,488	3,735,841	4,147,724	978,956	5,126,680	4,600,614	1,120,545	5,727,734

† For fiscal year ending Sept. 30. ‡ Not complete for all territories. ***The American Automobile* (Overseas Edition). § Miscellaneous total is 2,500. * Bureau of Foreign and Domestic Commerce—Automotive Division.

Foreign Production Up 11 Per Cent Over 1935

These figures do not include American cars assembled in European plants.

	Motor Vehicles
1924	334,500
1925	460,678
1926	529,343
1927	578,201
1928	589,900
1929	650,000
1930	583,107
1931	576,289
1932	545,469
1933	689,666
1934	865,878
1935	1,006,869
1936*	†1,110,877

* *The American Automobile* (Overseas Edition).
† Partly estimated.

Average Wholesale Price of Passenger Cars and Trucks

(Based on Units and Value of Production)

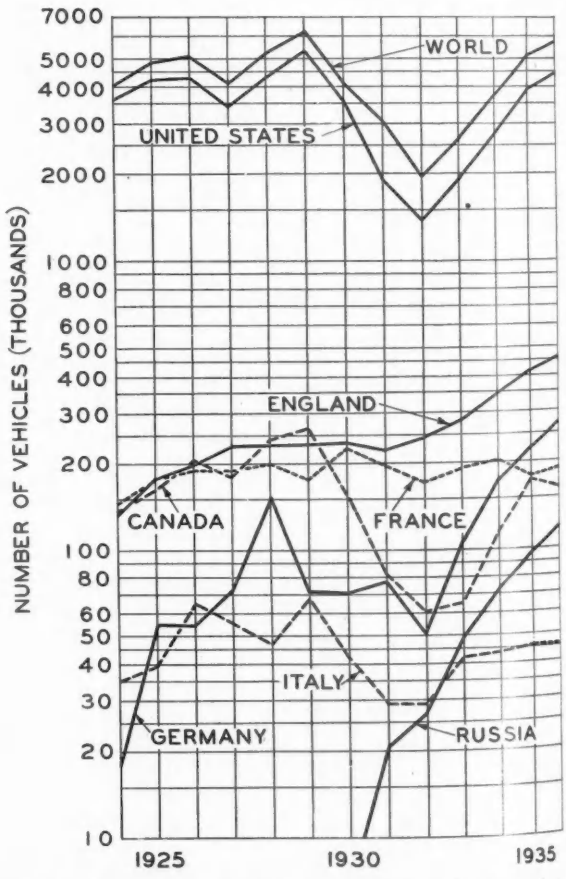
	Passenger Cars	Trucks
1921	$720	$1,035
1922	660	834
1923	607	745
1924	618	753
1925	656	843
1926	695	842
1927	735	875
1928	673	781
1929	622	720
1930	591	678
1931	566	629
1932	548	580
1933	489	536
1934	530	555
1935	528	545
1936	536	563

Canadian Production*

	Pass. Cars	Trucks	Total
1922	94,904	7,149	102,053
1923	129,228	17,210	146,438
1924	117,765	17,481	135,246
1925	135,573	26,397	161,970
1926	164,856	39,871	204,727
1927	146,827	32,227	179,054
1928	196,741	45,641	242,382
1929	207,498	55,797	263,295
1930	125,442	28,750	154,192
1931	65,093	17,528	82,621
1932	50,718	10,098	60,816
1933	53,855	12,069	65,924
1934	92,647	24,205	116,852
1935	135,562	37,315	172,877
1936	131,308	31,014	162,322

* Dominion Bureau of Statistics.

Foreign Production by Countries



This chart shows production of the leading producing countries of motor vehicles outside of the United States

Passenger Car Production

(U. S. and Canada)

Division by wholesale price classes

	Units					Per Cent of Total				
	1932	1933	1934	1935	1936*	1932	1933	1934	1935	1936*
Under $500	794,188	1,316,341	1,443,357	1,787,171	1,996,490	66.95	80.89	63.57	52.75	52.44
$501-$750	260,831	237,099	715,989	1,444,529	1,632,742	22.00	14.57	31.53	42.64	42.88
$751-$1,000	74,610	32,610	66,223	110,813	122,058	6.29	2.00	2.92	3.27	3.21
$1,001-$1,500 ...	36,670	20,125	27,576	28,736	39,912	3.09	1.24	1.21	.85	1.05
$1,501-$2,000 ...	8,699	10,409	8,391	8,716	11,532	.73	.64	.37	.26	.30
$2,001-$3,000 ...	8,679	8,725	6,879	5,413	4,324	.73	.54	.31	.16	.11
$3,001 and over.	2,532	2,052	2,151	2,428	313	.21	.12	.09	.07	.01
Total.....	1,186,209	1,627,361	2,270,566	3,387,806	3,807,371	100.00	100.00	100.00	100.00	100.00

*Partly estimated.

Monthly Motor Vehicle Production

(U. S. and Canada)

Passenger Cars

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	
January	287,900	209,902	212,244	364,773	242,672	142,869	101,915	112,754	117,700	235,806	309,535	January
February	337,900	277,376	301,320	431,755	293,036	187,948	98,604	93,153	193,875	287,142	235,669	February
March	402,568	363,595	386,510	546,489	348,087	241,727	106,003	103,396	291,546	377,374	358,011	March
April	403,271	377,713	384,778	571,956	393,804	300,960	128,597	156,712	303,806	407,721	437,380	April
May	396,218	378,921	404,444	541,310	382,619	282,096	165,025	188,675	290,268	322,485	401,896	May
June	359,534	296,035	381,026	469,260	298,130	215,979	166,646	213,602	272,090	306,300	389,020	June
July	330,007	246,530	357,682	439,598	230,761	187,324	101,478	196,587	231,501	283,715	380,594	July
August	393,823	285,724	422,996	452,857	190,864	158,851	79,073	196,333	190,825	186,133	212,805	August
September	365,553	235,124	374,276	375,046	182,049	111,336	66,489	161,734	129,251	59,499	93,078	September
October	300,854	189,278	351,899	328,305	117,014	59,176	37,468	107,593	88,128	220,113	195,280	October
November	227,131	114,885	223,896	176,629	104,668	49,996	49,201	43,868	50,072	347,830	351,542	November
December	144,084	108,277	211,087	98,920	126,483	99,921	87,710	52,954	113,504	353,688	442,561	December
Total	3,948,843	3,083,360	4,012,158	4,794,898	2,910,187	2,038,183	1,186,209	1,627,361	2,270,566	3,387,806	3,807,371	Total

Motor Trucks

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	
January	36,577	44,382	27,947	57,765	40,938	35,475	21,160	19,429	44,870	64,529	67,771	January
February	44,590	46,014	34,980	65,950	52,925	41,863	24,291	15,592	44,952	63,204	65,205	February
March	53,273	54,168	44,273	79,587	69,031	47,671	21,274	18,508	61,068	70,520	80,981	March
April	57,567	53,280	49,537	91,855	74,477	53,138	28,539	27,975	67,532	69,338	90,346	April
May	53,883	52,435	55,281	94,940	62,080	47,805	27,491	35,132	60,348	59,324	78,675	May
June	48,486	46,990	44,169	98,164	51,466	41,496	23,572	43,448	48,292	65,785	80,335	June
July	44,811	33,853	59,630	78,703	44,960	35,386	15,137	39,310	44,546	61,582	70,880	July
August	48,313	36,796	69,547	59,985	43,296	32,890	15,319	42,601	53,890	58,942	63,146	August
September	50,880	36,448	62,231	54,683	46,557	31,876	20,003	35,874	46,335	33,229	46,707	September
October	48,237	38,152	63,921	66,235	41,928	22,406	14,157	30,772	49,643	60,203	34,709	October
November	38,998	26,102	45,013	50,368	37,493	20,118	12,560	19,106	35,107	60,720	54,160	November
December	31,203	28,400	32,454	28,582	34,840	24,052	21,782	30,801	42,614	64,629	76,571	December
Total	556,818	497,020	588,983	826,817	599,991	434,176	245,285	358,548	599,397	732,005	809,486	Total

Passenger Cars and Trucks

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	
January	324,477	254,284	240,191	422,538	283,610	178,344	123,075	132,183	162,570	300,335	377,306	January
February	382,490	323,390	336,300	497,705	345,961	229,811	122,895	108,745	238,827	350,346	300,874	February
March	455,841	417,763	430,783	626,076	417,118	289,398	127,277	121,904	352,614	447,894	438,992	March
April	460,838	430,993	434,315	663,811	468,281	354,098	155,136	184,687	371,338	477,059	527,726	April
May	450,101	431,356	459,725	636,250	444,699	329,901	192,516	223,807	350,616	381,809	480,571	May
June	408,020	343,025	425,195	567,424	349,596	257,475	190,218	257,050	320,382	372,085	469,355	June
July	374,818	280,383	417,312	518,301	275,721	222,710	116,615	235,897	276,047	345,297	451,474	July
August	442,136	322,520	492,543	512,842	234,160	191,741	94,392	238,934	244,715	245,075	275,951	August
September	416,433	271,572	436,507	429,729	228,606	143,212	86,492	197,608	175,586	92,728	139,785	September
October	349,091	227,430	415,820	394,540	159,942	81,582	51,625	138,365	135,771	280,316	229,989	October
November	266,129	140,987	268,909	226,997	142,161	70,114	61,761	62,974	85,179	408,550	405,702	November
December	175,287	136,677	243,541	125,502	161,323	123,973	109,492	83,755	156,318	418,317	519,132	December
Total	4,505,661	3,580,380	4,601,141	5,621,715	3,510,178	2,472,359	1,431,494	1,985,909	2,869,963	4,119,811	4,616,857	Total

Figures from U. S. Census Bureau,[1] and Dominion Bureau of Statistics. Includes overseas assemblies of motor vehicles of American make.

G.M. Produced 42 Per Cent of All Passenger Cars in 1936

(U. S. and Canada)

	1931		1932		1933		1934		1935		1936	
	Units	% of Total	Units	% of Total	Units	% of Total	Units	% of Total	Units	% of Total	Units	% of Total
Chrysler Motors ..	252,890	12.4	211,670	17.8	409,970	25.2	528,230	23.3	767,060	22.6	953,620	25.0
Ford & Lincoln ...	570,576	28.0	345,735	29.2	377,966	23.2	623,271	27.5	989,642	29.2	867,487	22.8
Gen. Motors Corp..	896,210	44.0	448,193	37.8	671,880	41.3	902,324	39.7	1,324,404	39.1	1,600,270	42.0
All Others	318,507	15.6	180,611	15.2	167,545	10.3	216,341	9.5	306,700	9.1	385,994	10.2
Total	2,038,183	100.0	1,186,209	100.0	1,627,361	100.0	2,270,566	100.0	3,387,806	100.0	3,807,371	100.0

U.S. and Canadian Production of Motor Vehicles

Yearly totals of units and their wholesale value

Year	Passenger Cars		Trucks		Cars and Trucks	
	Units*	Value	Units	Value	Units	Value
1912	356,000	$335,000,000	22,000	$43,000,000	378,000	$378,000,000
1913	461,500	399,902,000	23,500	44,000,000	485,000	443,902,000
1914	543,679	413,859,000	25,375	45,098,464	569,054	458,957,843
1915	895,930	575,978,000	74,000	125,800,000	969,930	701,778,000
1916	1,525,578	921,378,000	92,130	161,000,000	1,617,708	1,082,378,000
1917	1,745,792	1,053,505,781	128,157	220,982,668	1,873,949	11274,488,449
1918	943,436	801,937,925	227,250	434,168,992	1,170,686	1,236,106,917
1919	1,657,652	1,461,785 925	275,943	423,326,621	1,933,595	1,885,112,546
1920	1,905,560	1,809,170,963	321,789	423,249,410	2,227,3-9	2,232,420,373
1921	1,518,061	1 091,752,452	164,304	169,914,098	1,682,365	1,261,666,550
1922	2,369,089	1,561,740,645	277,140	231,282,063	2,646,229	1,793,022,708
1923	3,753,945	2,274,554,488	426,505	317,478,940	4,180,450	2,592,033,428
1924	3,303,646	2,040,706,519	434,140	328,706,496	3,737,786	2,367.413,015
1925	3,870,744	2,544,528,799	557,056	470,634,763	4,4c7,800	3,015,163,562
1926	3,948,843	2,746,064,722	556,818	468,752,769	4,505,661	3,214,817,491
1927	3,083,360	2,265,633,102	497,020	435,072,641	3,580,380	2,700,705,743
1928	4,012,158	2,703,753,500	588,983	459,045,380	4,601,141	3,162,798,880
1929	4,794,898	2,981,141,842	826,811	595,504,039	5,621,709	3,576,645,881
1930	2,910,187	1,720,652,104	599,991	405,949,915	3,510,178	2,126,602,019
1931	2,038,183	1,153,907,947	434,176	272,748,305	2,472,359	1,426,656,252
1932	1,186,209	650,781,297	245,285	142,264,003	1,431,494	793,045,300
1933	1,627,367	795,304,780	358,614	192,131,509	1,985,981	987,436,289
1934	2,270,566	1,204,376,351	599,397	332,913,985	2,869,963	1,537,290,336
1935	3,387,806	1,788,635,180	732,005	399,211,522	4,119,811	2,187,846,702
1936	3,807,371	2,041,000,000	809,486	455,000,000	4,616,857	2,496,000,000

* Includes Taxicabs

Automotive Industry as a Customer

(Per cent of U. S. total consumption used by automobile industry)

Material	Cent Per
Gasoline	89
Rubber	75
Plate Glass ..	72
Lead	35
Nickel	28
Steel	21
Copper	17
Aluminum ..	16
Zinc	15
Tin	13
Lumber, hardwood	7

Passenger Car Production by Body Types

United States and Canada

	1932		1933		1934		1935		1936*	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Roadster	36,104	3.04	11,952	0.73	13,013	0.57	8,556	0.25	4,950	0.13
Touring	11,349	0.96	10,418	0.65	14,679	0.65	8,587	0.25	2,017	0.05
Convertible Coupe ..	33,293	2.81	21,185	1.30	35,885	1.58	35,027	1.04	23,530	0.62
Convertible Sedan ..	8,810	0.74	1,638	0.10	3,020	0.13	6,890	0.20	4,226	0.11
Coupe	257,404	21.70	325,330	19.99	361,800	15.93	504,491	14.89	518,602	13.62
2-door Sedan	362,660	30.57	533,905	32.80	830,593	36.58	1,299,325	38.35	1,451,256	38.12
4-door Sedan	442,168	37.27	686,621	42.20	962,191	42.38	1,448,577	42.76	1,734,029	45.55
All other closed cars	17,195	1.45	23,002	1.41	5,902	0.26	4,214	0.13	10,356	0.27
Chassis	17,262	1.46	13,310	0.82	43,483	1.92	72,139	2.13	58,405	1.53
Total	1,186,209	100.00	1,627,361	100.00	2,270,566	100.00	3,387,806	100.00	3,807,371	100.00

* Partly estimated.

U. S. and Canadian Truck Production by Capacities

Truck Tonnage	1931 Number	1931 %	1932 Number	1932 %	1933 Number	1933 %	1934 Number	1934 %	1935 Number	1935 %	1936* Number	1936* %
¾ ton or less	109,220	25.2	79,127	32.3	98,928	27.6	172,089	28.6	249,957	34.1	308,457	38.1
1 ton and less than 1½	4,899	1.1	1,618	.6	893	.2	2,341	.4	2,259	.3	8,483	1.1
1½ ton and less than 2	289,418	66.6	144,113	58.8	228,238	63.7	376,475	62.9	420,597	57.5	425,766	52.6
2 ton and less than 2½	8,516	2.0	7,620	3.1	15,866	4.4	25,995	4.3	28,950	4.0	30,111	3.7
2½ ton and less than 3½	11,516	2.7	6,006	2.4	7,728	2.2	11,136	1.9	10,465	1.4	12,417	1.5
3½ ton and less than 5	4,532	1.0	2,689	1.1	2,859	.8	4,752	.8	3,612	.5	4,239	.5
5 ton	906	0.2	1,407	.6	580	.2	1,219	.2	16,165	2.2	20,013	2.5
Over 5 ton and special types	5,169	1.2	2,705	1.1	3,356	.9	5,390	.9				
Total	434,176	100.0	245,285	100.0	358,548	100.0	599,397	100.0	732,005	100.0	809,486	100.0

*Partly estimated.

Gasoline Prices 1924-1936†

Average 50 Representative Cities in the United States

Cents per Gallon

	Service Station (ex. Tax)	State Gasoline Tax	Service Station (inc. Tax)
1924	19.47	1.48	20.95
1925	20.09	2.11	22.20
1926	20.97	2.41	23.38
1927	18.29	2.80	21.09
1928	17.90	3.04	20.94
1929	17.92	3.50	21.42
1930	16.17	3.78	19.95
1931	13.00	4.00	17.00
1932	13.30	4.63*	17.93
1933	12.41	5.42*	17.83
1934	13.64	5.20*	18.84
1935	13.55	5.29*	18.84
1936	14.10	5.35*	19.45

* Including the Federal tax of one cent which became effective June 21, 1932. On June 17, 1933, it was increased to 1½ cents and on Jan. 1, 1934, it was reduced to one cent.

† Courtesy American Petroleum Institute.

Gasoline Consumption by States

STATE	Gallons 1935	Gallons 1936*	Per cent Increase	Per cent of total 1936
Alabama	172,446,000	200,850,000	16.5	1.03
Arizona	80,994,000	93,600,000	15.5	.48
Arkansas	143,379,000	152,100,000	10.6	.78
California	1,482,211,000	1,614,600,000	10.9	8.28
Colorado	182,367,000	204,750,000	11.2	1.05
Connecticut	269,871,000	292,500,000	10.8	1.50
Delaware	45,398,000	50,700,000	11.2	.26
District of Columbia	116,274,000	128,750,000	10.9	.65
Florida	296,696,000	304,200,000	10.2	1.56
Georgia	268,530,000	290,550,000	10.8	1.49
Idaho	72,635,000	87,750,000	12.1	.45
Illinois	1,069,243,000	1,189,500,000	10.2	6.10
Indiana	496,835,000	559,650,000	11.3	2.87
Iowa	421,152,000	462,150,000	10.9	2.37
Kansas	408,707,000	452,400,000	11.1	2.32
Kentucky	201,325,000	228,150,000	11.4	1.17
Louisiana	189,502,000	214,500,000	11.3	1.10
Maine	121,109,000	136,500,000	11.3	.70
Maryland	217,665,000	243,750,000	12.0	1.25
Massachusetts	610,797,000	653,250,000	10.7	3.35
Michigan	885,244,000	990,600,000	11.2	5.08
Minnesota	442,769,000	483,600,000	11.0	2.48
Mississippi	145,120,000	161,850,000	11.2	.83
Missouri	511,835,000	557,700,000	10.9	2.86
Montana	96,326,000	111,150,000	11.6	.57
Nebraska	231,602,000	232,050,000	10.0	1.19
Nevada	30,164,000	35,100,000	11.7	.18
New Hampshire	73,904,000	81,900,000	11.1	.42
New Jersey	843,479,000	741,000,000	−12.0	3.80
New Mexico	62,340,000	76,050,000	12.2	.39
New York	1,610,544,000	1,719,900,000	10.7	8.82
North Carolina	309,800,000	345,150,000	11.1	1.77
North Dakota	120,077,000	113,100,000	−6.2	.58
Ohio	1,044,529,000	1,162,200,000	11.1	5.96
Oklahoma	330,507,000	366,600,000	11.1	1.88
Oregon	186,629,000	230,100,000	12.3	1.18
Pennsylvania	1,177,719,000	1,277,250,000	11.9	6.55
Rhode Island	109,408,000	117,000,000	10.7	.60
South Carolina	144,729,000	161,850,000	11.2	.83
South Dakota	118,967,000	115,050,000	−2.5	.59
Tennessee	224,355,000	257,400,000	11.4	1.32
Texas	959,549,000	1,084,200,000	11.3	5.56
Utah	71,065,000	81,900,000	11.5	.42
Vermont	52,604,000	60,450,000	11.3	.31
Virginia	282,413,000	313,954,000	11.1	1.61
Washington	278,672,000	319,800,000	11.5	1.64
West Virginia	159,090,000	181,350,000	11.4	.93
Wisconsin	442,444,000	505,050,000	11.4	2.59
Wyoming	49,498,000	58,500,000	11.8	.30
Total	17,864,518,000	19,500,000,000	9.2	100.00

*Estimate, based on returns for 11 months furnished by American Petroleum Institute.

2,700,000 Motor Vehicles Scrapped in 1936

	U. S. Production	U. S. Net Exports	U. S. Domestic Market	U. S. Registrations	Unadjusted Scrapped	Total Scrapped
1922	2,544,176	126,589	2,417,587	12,239,853	642,449	794,957
1923	4,034,012	234,224	3,799,788	15,092,177	947,464	877,143
1924	3,602,540	292,522	3,310,018	17,595,373	806,822	1,151,381
1925	4,265,830	427,989	3,837,841	19,937,274	1,495,940	1,670,335
1926	4,300,930	392,080	3,908,850	22,001,393	1,844,731	1,824,228
1927	3,401,326	465,749	2,935,577	23,133,243	1,803,727	2,110,219
1928	4,358,759	582,165	3,776,594	24,493,124	2,416,713	2,516,873
1929	5,358,420	733,066	4,625,354	26,501,443	2,617,035	2,706,192
1930	3,355,986	405,006	2,950,980	26,657,072	2,795,351	2,803,718
1931	2,389,730	240,821	2,148,909	25,993,896	2,812,085	2,857,569
1932	1,370,678	119,699	1,250,979	24,341,822	2,903,053	2,569,475
1933	1,920,057	176,049	1,744,008	23,849,932	2,235,898	1,823,270
1934	2,753,111	310,933	2,442,178	24,881,437	1,410,643	1,583,967
1935	3,946,954	280,638	3,666,316	26,225,757	2,322,026	2,310,614
1936	4,454,535	294,709	4,159,826	28,086,380	2,299,203	*2,700,000

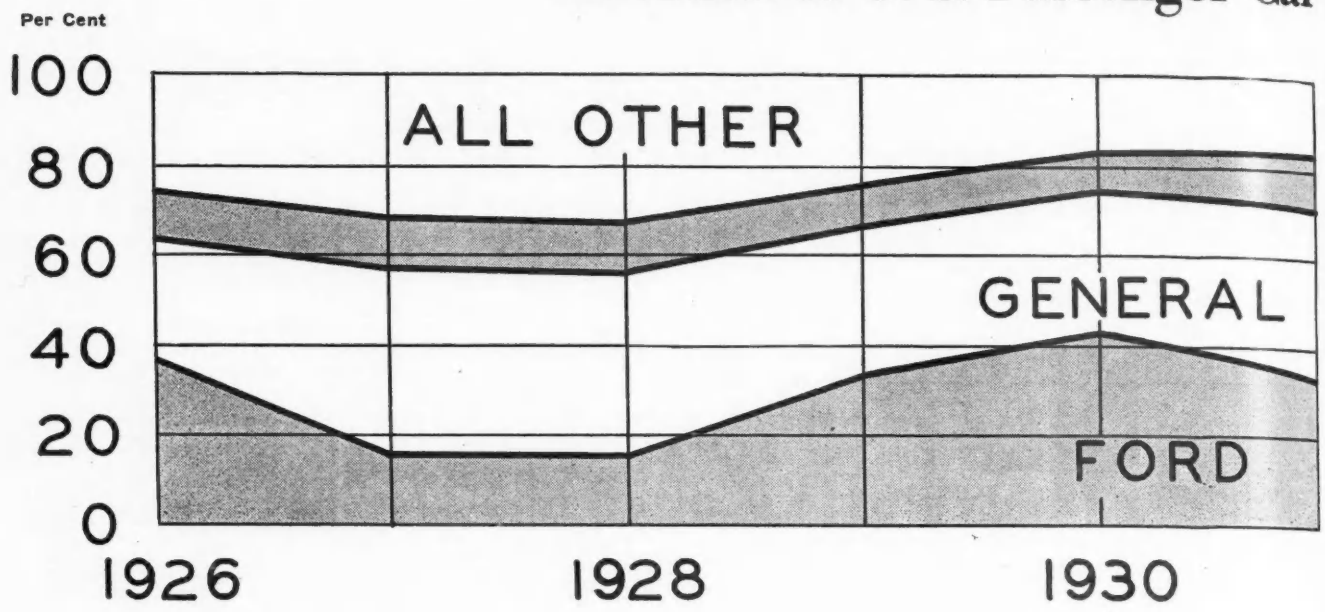
*Estimated.

Calculated by use of method devised by Oscar Pearson of the Automobile Manufacturers Association, though Automotive Industries count of motor vehicle registrations was used in place of those used by Mr. Pearson.

11% American Production Sold Outside U. S.

	Pass. Cars	Trucks	Cars and Trucks
1923	8.1	18.1	9.1
1924	10.1	21.5	11.4
1925	11.6	24.9	13.3
1926	11.4	25.8	13.2
1927	15.5	34.1	16.1
1928	15.3	35.5	17.9
1929	13.7	40.9	17.7
1930	12.8	31.0	15.9
1931	9.8	28.8	13.1
1932	10.4	23.4	12.6
1933	9.3	25.2	12.2
1934	12.2	25.1	14.9
1935	10.2	22.1	12.3
1936	9.2	19.7	11.0

Division of U. S. Passenger Car



1936 New Car Registrations

NEW CAR REGISTRATIONS

	1929	1930	1931	1932	1933	1934	1935	1936
Auburn	17,850	11,270	29,536	11,646	5,038	5,536	5,163	1,848
Austin		4,354	2,941		3,675	1,057		
Buick	*172,307	*122,656	90,873	49,708	43,809	63,067	87,635	160,687
Cadillac	14,936	12,078	11,136	6,269	3,903	4,899	6,692	11,766
Chevrolet	780,011	615,884	583,429	322,860	474,493	534,906	656,698	930,250
Chrysler	84,518	60,908	52,650	26,016	28,677	28,052	40,536	58,698
Continental					3,310	953		
Cord	799	1,879	1,416	335				1,174
DeSoto	59,614	35,267	28,430	25,311	21,260	11,447	26,952	45,088
DeVaux			4,808	1,358				
Dodge	115,773	64,105	53,090	28,111	86,062	90,139	178,770	248,518
Durant	47,715	21,440	7,229	1,135				
Ford	1,310,135	1,055,097	528,581	258,927	311,113	530,528	826,519	748,554
Franklin	10,704	7,482	3,881	1,829	1,329	360		
Graham	60,487	30,140	19,209	12,858	10,128	12,887	15,965	16,439
Hudson	62,692	30,466	19,189	8,641	2,946	19,307	21,587	20,825
Hupmobile	44,337	24,307	17,427	10,794	6,726	6,566	7,450	1,556
La Fayette						9,301	17,445	
La Salle	20,290	11,262	6,883	3,848	3,709	5,182	11,775	13,992
Lincoln	6,151	4,356	3,466	3,179	2,112	2,061	2,370	15,567
Marmon	*22,323	*12,369	5,687	1,365	86			
Nash	105,146	51,086	39,366	20,233	11,353	14,315	17,739	*43,070
Oakland	31,830	21,648	12,985					
Oldsmobile	*93,483	*50,510	*46,983	24,128	35,295	71,676	149,375	178,488
Packard	44,634	28,318	16,256	11,058	9,081	6,552	37,653	68,772
Pierce-Arrow	8,386	6,795	4,522	2,692	2,152	1,740	875	787
Plymouth	84,969	64,301	94,289	111,926	249,667	302,557	382,985	499,580
Pontiac	158,272	68,389	73,148	47,926	85,348	72,645	140,122	171,669
Reo	17,319	11,450	6,762	3,870	3,623	3,854	3,894	3,146
Rockne			2	16,966	14,554			
Studebaker	82,839	56,526	46,533	25,002	21,688	41,560	39,573	67,835
Terraplane (Essex)	191,331	63,338	42,545	28,778	35,831	40,510	53,838	78,471
Willys-Whippet	162,366	51,687	42,936	22,483	15,314	6,576	10,439	12,423
Willys-Knight	37,343	14,079	8,405	3,415	353			
Miscellaneous	31,646	9,532	3,548	3,732	1,159	324	1,858	5,294
Total	3,880,206	2,625,979	1,908,141	1,096,399	1,493,794	1,898,557	2,743,908	3,404,497

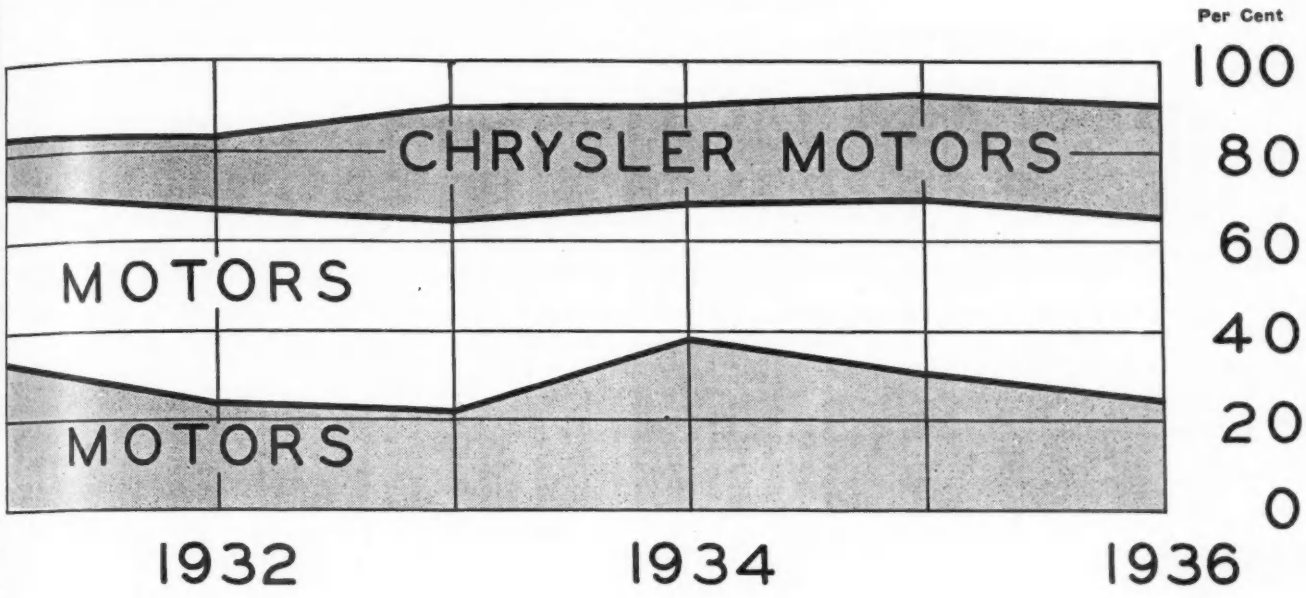
BY MANUFACTURING GROUPS

Chrysler Corp.	344,874	224,581	228,459	191,364	385,666	432,195	629,243	851,884
Ford Motor Co.	1,316,286	1,059,453	532,047	262,106	313,225	532,589	828,889	764,121
General Motors	1,271,129	905,427	825,437	454,739	646,556	752,375	1,052,297	1,466,852
All Others	947,917	436,518	322,198	98,190	148,347	171,398	233,479	321,640

*1929—1930

Buick includes Marquette.
Marmon includes Roosevelt.
Oldsmobile includes Viking.
Miscellaneous includes Gardner, Jordan, Windsor, Peerless, Stutz, Blackhawk and others.

Market by Manufacturing Groups



Increased 24% Over 1935

PER CENT OF TOTAL

	1929	1930	1931	1932	1933	1934	1935	1936
Auburn	.46	.43	1.55	1.06	.34	.29	.19	.05
Austin	..	.17	.15	..	.25	.06	..	..
Buick	4.44	4.67	4.76	4.53	2.93	3.34	3.19	4.72
Cadillac	.38	.46	.58	.57	.26	.26	.24	.35
Chevrolet	20.10	23.57	30.59	29.46	31.77	28.32	23.93	27.33
Chrysler	2.18	2.32	2.76	2.37	1.92	1.49	1.48	1.72
Continental	..	..	..	..	.22	.05	..	..
Cord	.02	.07	.07	.03	..	..	..	.03
De Soto	1.54	1.34	1.49	2.31	1.42	.61	.98	1.32
De Vaux	..	..	.25	.12	..	..	..	..
Dodge	2.98	2.44	2.78	2.56	5.76	4.77	6.52	7.30
Durant	1.23	.82	.38	.10	..	..	..	..
Ford	33.76	40.18	27.70	23.62	20.83	28.09	30.12	21.99
Franklin	.28	.28	.20	.17	.09	.02	..	..
Graham	1.56	1.15	1.01	1.17	.68	.68	.58	.48
Hudson	1.62	1.16	1.01	.79	.20	1.02	.79	.61
Hupmobile	1.14	.93	.91	.98	.45	.35	.27	.05
La Fayette	..	..	..	..	..	.49	.64	..
La Salle	.52	.43	.36	.35	.25	.27	.43	.41
Lincoln	.16	.17	.18	.29	.14	.11	.09	.46
Marmon	.58	.47	.30	.12	.01	..	..	..
Nash	2.71	1.95	2.06	1.85	.76	.76	.65	*1.27
Oakland	.82	.82	.68	..	..	..	..	..
Oldsmobile	2.41	1.92	2.46	2.20	2.36	3.80	5.44	5.25
Packard	1.15	1.08	.85	1.01	.61	.35	1.37	2.02
Pierce-Arrow	.22	.26	.24	.25	.14	.09	.03	.02
Plymouth	2.19	2.45	4.94	10.21	16.71	16.02	13.96	14.68
Pontiac	4.08	2.60	3.83	4.37	5.71	3.85	5.11	5.04
Reo	.45	.44	.35	.35	.24	.20	.14	.09
Rockne	..	..	..	1.55	.97	..	..	..
Studebaker	2.13	2.15	2.44	2.28	1.45	2.20	1.44	1.99
Terraplane	4.93	2.41	2.23	2.62	2.40	2.15	1.96	2.30
Willys-Whippet	4.18	1.97	2.25	2.05	1.03	.35	.38	.36
Willys-Knight	.96	.54	.44	.31	.02	..	..	..
Miscellaneous	.82	.35	.20	.35	.08	.01	.07	.16
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

RANK

	1929	1930	1931	1932	1933	1934	1935	1936
Auburn	23	24	13	16	18	19	21	21
Austin	..	29	30	..	21	25	..	..
Buick	4	3	4	4	6	7	7	7
Cadillac	25	22	20	20	19	21	20	19
Chevrolet	2	2	1	1	1	1	2	1
Chrysler	11	8	7	8	9	10	9	11
Continental	..	..	..	..	23	26	..	..
Cord	29	30	31	30	..	..	..	23
De Soto	15	13	14	9	11	14	12	12
De Vaux	..	..	26	28	..	..	..	..
Dodge	7	6	6	7	4	4	4	4
Durant	16	19	22	29	..	..	..	..
Ford	1	1	2	2	2	2	1	2
Franklin	26	26	28	26	27	27	..	..
Graham	14	15	15	15	15	13	16	15
Hudson	13	14	16	19	24	11	13	14
Hupmobile	18	17	17	18	17	17	19	22
La Fayette	..	..	..	..	..	15	15	..
La Salle	22	25	23	22	20	20	17	17
Lincoln	28	28	29	24	26	23	23	16
Marmon	21	21	25	27	29	..	..	..
Nash	8	11	12	13	14	12	14	13
Oakland	20	18	19	..	..	..	..	..
Oldsmobile	9	12	8	11	8	6	5	5
Packard	17	16	18	17	16	18	11	9
Pierce-Arrow	27	27	27	25	25	24	24	24
Plymouth	10	5	3	3	3	3	3	3
Pontiac	6	4	5	6	5	5	6	6
Reo	24	23	24	21	22	22	22	20
Rockne	..	..	..	14	13	..	..	..
Studebaker	12	9	9	10	10	8	10	10
Terraplane	3	7	11	6	7	9	8	8
Willys-Whippet	5	10	10	12	12	16	18	18
Willys-Knight	19	20	21	23	28	..	..	..
Miscellaneous	..	..	..	..	..	..	..	..

BY MANUFACTURING GROUPS

Chrysler Corp.	8.89	8.55	11.97	17.45	25.82	22.89	22.93	25.02	4	3	3	3	2	3	3	2
Ford Motor Co.	33.92	40.34	27.88	23.91	20.97	28.20	30.21	22.44	1	1	2	2	3	2	2	3
General Motors	32.75	34.48	43.26	41.48	43.28	39.84	38.35	43.09	2	½	1	1	1	1	1	1
All Others	24.44	16.63	16.89	17.16	9.93	9.07	8.51	9.45	3	4	4	4	4	4	4	4

*1931
Oldsmobile includes Viking.
Miscellaneous includes Stutz and others.

*1936
Includes LaFayette for ten months.

U. S. Sales of New Cars and Trucks by Months for 11 Years*

U. S. New Passenger Car Registrations

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	
January	193,748	174,638	136,071	219,760	180,094	126,776	87,493	79,821	61,242	136,635	215,782	January
February	162,907	179,920	165,537	235,590	211,645	134,133	82,813	69,464	94,687	170,615	176,668	February
March	276,819	260,134	254,214	377,802	298,824	200,841	92,192	78,741	173,287	261,477	301,272	March
April	388,024	329,687	332,056	481,675	357,064	265,732	121,093	119,909	223,050	319,650	397,190	April
May	396,504	317,932	351,459	454,132	345,031	247,727	131,282	160,242	219,225	293,199	392,749	May
June	319,788	268,066	317,069	386,398	260,861	201,911	148,752	174,190	223,864	280,360	369,422	June
July	360,700	250,315	324,120	432,503	254,098	194,322	104,188	185,660	229,006	265,178	357,490	July
August	306,790	245,961	329,674	376,886	203,737	155,744	93,457	178,661	193,198	233,851	262,912	August
September	267,471	187,678	271,821	304,452	175,286	124,903	81,893	157,976	146,931	157,098	208,834	September
October	241,094	185,383	284,939	288,697	150,219	102,659	63,195	136,326	140,937	148,389	171,319	October
November	161,013	134,635	211,736	183,756	93,066	75,829	44,358	94,180	107,574	220,262	223,560	November
December	153,743	89,189	160,883	138,555	96,054	77,564	45,683	58,624	75,356	237,194	327,303	December
Total	3,228,401	2,623,538	3,139,579	3,880,206	2,625,979	1,908,141	1,096,399	1,493,794	1,888,557	2,743,908	3,404,497	Total

U. S. New Truck Registrations

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	
January	25,048	27,567	16,431	29,900	30,236	24,415	14,776	11,769	22,903	34,759	43,760	January
February	23,177	28,437	17,510	32,637	31,880	23,466	14,558	9,707	24,476	34,797	40,301	February
March	34,955	33,539	24,698	46,368	42,199	30,609	16,874	9,934	33,884	41,511	52,430	March
April	44,846	37,264	30,272	56,299	47,029	36,848	17,784	17,301	38,882	46,785	64,957	April
May	37,761	33,966	32,468	52,874	43,286	33,496	18,696	20,925	39,831	47,968	62,183	May
June	33,223	28,495	29,155	45,114	33,531	28,496	17,876	23,254	34,768	48,243	56,851	June
July	39,191	28,359	31,844	57,943	39,904	30,102	14,731	30,642	37,490	51,243	63,695	July
August	36,653	28,156	36,753	52,557	33,787	27,070	15,061	28,799	40,790	50,355	59,222	August
September	34,325	24,436	35,135	46,560	33,933	25,967	14,967	31,269	37,225	41,390	54,611	September
October	35,034	27,231	40,890	49,899	34,237	24,685	15,156	28,058	40,878	37,439	41,207	October
November	23,667	18,834	27,491	33,631	22,012	15,553	10,392	18,691	28,689	36,935	30,222	November
December	18,117	11,681	18,476	23,275	18,665	13,177	9,522	15,580	24,070	39,258	42,205	December
Total	385,997	327,965	341,123	527,057	410,699	313,884	180,413	245,869	403,886	510,683	611,644	Total

Total U. S. New Passenger Car and Truck Registrations

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	
January	218,796	202,205	152,502	249,660	210,330	151,191	102,269	91,530	84,145	171,394	259,542	January
February	186,084	208,357	183,047	268,227	243,525	157,599	97,371	79,171	119,363	205,412	216,969	February
March	311,574	293,673	278,912	424,170	341,023	231,450	109,066	88,675	207,171	302,988	353,702	March
April	432,870	366,951	362,328	537,974	404,093	302,580	138,877	137,210	261,932	366,435	462,147	April
May	434,265	351,898	383,927	507,006	388,317	281,223	149,978	181,167	259,056	341,167	454,932	May
June	353,011	296,561	346,224	431,512	294,392	230,407	166,628	197,444	258,632	328,603	426,273	June
July	399,891	278,674	355,964	490,446	294,002	224,424	118,919	216,302	266,496	336,421	421,185	July
August	343,443	274,117	366,427	429,443	237,524	182,814	108,538	207,460	233,988	284,206	322,134	August
September	301,796	212,114	306,956	351,012	209,219	150,870	96,860	189,245	184,156	198,488	263,445	September
October	276,128	212,614	325,829	338,596	184,456	127,344	78,351	164,384	181,815	185,828	212,526	October
November	184,680	153,469	239,227	217,387	115,078	91,382	54,750	112,871	136,263	257,197	253,782	November
December	171,860	100,870	179,359	161,830	114,719	90,741	55,205	74,204	99,426	276,452	369,508	December
Total	3,614,398	2,951,503	3,480,702	4,407,263	3,036,678	2,222,025	1,276,812	1,739,663	2,292,443	3,254,591	4,016,141	Total

* Figures from R. L. Polk & Co.

U. S. New Car Registrations and Estimated Dollar Volume by Retail Price Classes

	Units					Per Cent of Total				
	1932	1933	1934	1935	1936	1932	1933	1934	1935	1936
Chevrolet, Ford and Plymouth	693,713	1,035,273	1,368,099	1,866,202	2,178,446	63.49	69.36	72.45	68.05	64.09
Others under $750	84,619	250,982	80,384	392,571	502,805	7.74	16.81	4.26	14.32	14.79
$751–$1,000	184,425	116,509	359,170	369,698	548,601	16.88	7.81	19.02	13.48	16.14
$1,001–$1,500	76,720	57,563	52,278	92,400	144,968	7.02	3.86	2.77	3.37	4.26
$1,501–$2,000	26,099	12,043	13,427	7,479	10,635	2.39	.81	.71	.27	.31
$2,001–$3,000	18,676	15,025	10,913	9,277	8,811	1.71	1.00	.58	.34	.25
$3,001 and over	8,415	5,240	4,087	4,619	5,005	.77	.35	.21	.17	.15
Total	1,092,667	1,492,635	1,888,358	2,742,246	3,399,271	100.00	100.00	100.00	100.00	100.00
Miscellaneous	3,732	1,159	199	1,662	5,226					
Total	1,096,399	1,493,794	1,888,557	2,743,908	3,404,497					

	Estimated Dollar Volume*					Per Cent of Total				
	1932	1933	1934	1935	1936†	1932	1933	1934	1935	1936
Chevrolet, Ford and Plymouth	$408,000,000	$571,000,000	$827,500,000	$1,137,600,000	$1,324,600,000	48.40	58.49	63.68	60.04	55.89
Others under $750	58,000,000	163,400,000	54,000,000	279,800,000	362,800,000	6.88	16.74	4.16	14.77	15.31
$751–$1,000	161,000,000	96,600,000	286,600,000	313,200,000	456,100,000	19.10	9.89	22.06	16.53	19.24
$1,001–$1,500	93,000,000	66,900,000	63,900,000	107,200,000	166,300,000	11.03	6.85	4.92	5.66	7.02
$1,501–$2,000	44,000,000	19,900,000	24,200,000	12,700,000	18,400,000	5.22	2.04	1.86	.67	.77
$2,001–$3,000	48,000,000	37,300,000	27,800,000	25,300,000	22,400,000	5.69	3.82	2.14	1.34	.95
$3,001 and over	31,000,000	21,200,000	15,400,000	18,800,000	19,400,000	3.68	2.17	1.18	.99	.82
Total	$843,000,000	$976,300,000	$1,299,400,000	$1,894,600,000	$2,370,000,000	100.00	100.00	100.00	100.00	100.00

* All calculations are based on list price F.O.B. factory of the five-passenger, four-door sedan in conjunction with actual new car registrations of each model. The total dollar volume for the different models are then consolidated by price classes.

† Estimated on basis of old F.O.B. prices.

U. S. New Car Registrations and Estimated Dollar Volume

By Months

Month	1933			1934			1935			1936		
	Units†	Dollar* Volume	Average Price per Car	Units†	Dollar* Volume	Average Price per Car	Units†	Dollar* Volume	Average Price per Car	Units†	Dollar* Volume	Average Price per Car
January	79,624	$55,200,000	$693	61,195	$43,500,000	$711	136,527	$96,400,000	$706	215,771	$149,100,000	$691
February	69,365	48,700,000	702	94,867	65,200,000	687	170,526	119,300,000	700	176,646	120,900,000	684
March	78,639	53,900,000	685	173,264	120,800,000	697	261,421	182,600,000	698	301,256	207,900,000	690
April	119,721	80,800,000	675	220,868	161,500,000	731	319,590	225,400,000	705	397,103	275,700,000	694
May	160,127	105,000,000	656	219,142	156,800,000	716	293,149	199,900,000	682	391,542	271,100,000	692
June	174,117	114,000,000	655	223,624	158,900,000	711	280,309	190,900,000	681	368,469	253,500,000	688
July	185,606	120,000,000	647	228,734	156,000,000	682	285,161	192,500,000	675	356,815	244,600,000	686
August	178,603	112,400,000	629	193,805	131,100,000	676	233,820	157,700,000	674	262,709	181,800,000	692
September	157,903	100,100,000	635	146,898	99,300,000	676	157,071	107,000,000	681	208,517	143,800,000	689
October	136,227	86,500,000	635	140,858	88,100,000	625	147,801	106,700,000	722	170,959	122,000,000	713
November	94,130	61,900,000	658	107,616	69,800,000	649	219,710	152,100,000	692	222,787	162,700,000	730
December	58,563	38,500,000	657	75,490	47,600,000	631	237,161	164,600,000	694	326,697	236,900,000	725
Total	1,492,625	$977,000,000	$655	1,886,361	$1,298,600,000	$688	2,742,246	$1,895,100,000	$691	3,399,271	$2,370,000,000	$697

† The difference between the number of units shown here and those for new car registrations by years is due to the cars grouped under "Miscellaneous" of which no account is taken in these calculations. The dollar volume difference is due to the rounding out of the calculated tota's.

* All calculations are based on list price F.O.B. factory of the five-passenger, four-door sedan in conjunction with actual new car registrations of each model.

New Motor Vehicle Registration by States*

	Total New Motor Vehicles			Per Cent of Total			Passenger Cars			Trucks		
	1934	1935	1936	1934	1935	1936	1934	1935	1936	1934	1935	1936
Alabama	33,611	39,332	48,385	1.47	1.21	1.21	25,560	29,407	35,198	8,051	9,925	13,187
Arizona	8,639	12,820	16,268	.38	.39	.41	6,472	9,694	12,758	2,167	3,126	3,510
Arkansas	20,717	25,211	29,097	.90	.77	.72	15,757	17,828	19,612	4,960	7,383	9,485
California	136,617	225,910	289,911	5.96	6.94	7.22	116,121	196,967	256,255	20,496	28,943	33,656
Colorado	23,897	32,141	44,781	1.04	.99	1.11	18,701	26,055	35,721	5,196	6,086	9,060
Connecticut	33,471	47,323	59,582	1.46	1.45	1.48	27,347	40,005	51,342	6,124	7,318	8,240
Delaware	5,983	8,544	10,200	.26	.26	.25	4,868	7,119	8,477	1,115	1,425	1,723
District of Columbia	20,502	31,501	35,727	.89	.97	.89	18,523	29,009	32,787	1,979	2,492	2,940
Florida	34,763	40,750	48,400	1.52	1.25	1.21	26,717	32,476	38,988	8,046	8,274	9,412
Georgia	41,156	49,157	56,522	1.80	1.51	1.41	33,235	38,270	43,581	7,921	10,887	12,941
Idaho	10,033	15,088	19,377	.44	.46	.48	7,216	11,084	14,438	2,817	4,004	4,939
Illinois	126,871	205,608	267,261	5.53	6.32	6.65	109,287	182,202	236,138	17,584	23,046	31,123
Indiana	64,270	109,038	136,307	2.80	3.35	3.39	53,147	91,029	116,280	11,123	18,009	20,027
Iowa	48,479	81,709	84,882	2.11	2.51	2.11	38,619	68,955	71,883	9,860	12,754	12,999
Kansas	40,105	59,270	65,500	1.75	1.82	1.63	32,935	49,665	54,094	7,170	9,605	11,406
Kentucky	32,704	44,851	50,979	1.43	1.38	1.27	25,889	35,762	40,109	6,815	9,089	10,870
Louisiana	28,631	36,480	47,224	1.25	1.12	1.18	23,272	29,279	37,471	5,359	7,201	9,753
Maine	15,835	17,215	23,227	.69	.53	.58	11,573	13,111	17,890	4,262	4,104	5,337
Maryland	30,387	47,785	51,610	1.33	1.47	1.29	24,930	41,128	44,228	5,457	6,657	7,382
Massachusetts	83,423	100,087	132,611	3.64	3.08	3.31	70,536	85,573	117,261	12,887	14,514	15,350
Michigan	126,054	203,708	251,808	5.50	6.28	6.27	109,773	182,604	226,968	16,281	21,104	24,840
Minnesota	46,828	78,198	95,917	2.04	2.40	2.39	37,573	65,458	81,773	9,255	12,740	14,144
Mississippi	21,318	25,799	35,373	.93	.79	.88	15,904	19,226	25,006	5,414	6,573	10,367
Missouri	68,505	91,115	107,829	2.99	2.80	2.68	55,585	74,915	87,687	12,920	16,200	20,142
Montana	14,004	23,344	26,675	.61	.72	.66	9,789	17,405	20,745	4,215	5,939	5,930
Nebraska	27,189	40,524	44,691	1.19	1.25	1.11	21,778	34,227	37,695	5,411	6,297	6,996
Nevada	3,095	4,553	6,465	.13	.14	.16	2,457	3,547	5,255	638	1,006	1,210
New Hampshire	10,642	12,478	15,454	.46	.38	.38	7,911	9,988	12,258	2,731	2,490	3,196
New Jersey	72,077	99,214	128,672	3.14	3.05	3.21	61,061	86,049	111,737	11,444	13,165	16,935
New Mexico	9,876	12,369	15,426	.43	.38	.38	6,298	8,311	10,881	3,150	4,058	4,545
New York	209,718	278,310	342,482	9.15	8.55	8.53	179,335	242,505	303,323	30,383	35,805	39,159
North Carolina	57,136	69,825	63,650	2.49	2.15	1.58	45,951	55,990	49,364	11,185	13,835	14,286
North Dakota	10,082	15,756	13,775	.44	.48	.34	7,693	12,612	11,095	2,389	3,144	2,680
Ohio	148,932	203,160	274,893	6.50	6.24	6.84	128,445	180,388	244,865	20,487	22,772	30,028
Oklahoma	48,321	64,884	71,342	2.11	1.99	1.78	39,377	53,116	56,605	8,944	11,768	14,737
Oregon	18,089	31,713	48,510	.79	.97	1.21	14,309	25,749	40,460	3,780	5,964	8,05
Pennsylvania	177,056	234,033	315,200	7.72	7.19	7.85	147,165	201,936	273,281	29,891	32,097	41,919
Rhode Island	13,870	18,898	21,903	.60	.52	.55	11,835	14,810	19,309	2,035	2,088	2,594
South Carolina	24,124	28,900	30,111	1.05	.89	.75	19,896	23,419	24,020	4,228	5,481	6,091
South Dakota	9,449	16,551	16,518	.41	.51	.41	7,197	13,531	13,556	2,252	3,020	2,962
Tennessee	34,443	47,965	53,021	1.50	1.47	1.32	28,077	38,447	41,959	6,366	9,518	11,062
Texas	131,476	171,163	196,898	5.74	5.26	4.91	106,622	138,726	157,995	24,854	32,437	38,903
Utah	9,417	14,323	17,969	.41	.44	.45	6,887	10,825	14,398	2,530	3,498	3,571
Vermont	6,940	9,581	10,721	.30	.29	.27	4,892	7,187	8,413	2,048	2,394	2,308
Virginia	39,880	57,215	63,250	1.74	1.76	1.57	31,372	45,813	50,346	8,508	11,402	12,904
Washington	29,319	45,761	65,124	1.28	1.41	1.62	23,120	36,685	54,458	6,199	9,076	10,666
West Virginia	27,876	32,729	46,453	1.22	1.01	1.16	22,029	26,083	37,272	5,847	6,646	9,181
Wisconsin	50,321	85,686	105,806	2.20	2.63	2.63	41,008	72,568	89,569	9,313	13,118	16,237
Wyoming	6,312	9,376	12,354	.28	.29	.31	4,513	7,170	9,693	1,799	2,206	2,661
Total	2,292,443	3,254,591	4,016,141	100.00	100.00	100.00	1,888,557	2,743,908	3,404,497	403,886	510,683	611,644

*Figures from R. L. Polk & Co.

1936 New Truck Registrations Best in History‡

	New Truck Registrations						Per Cent of Total					
	1931	1932	1933	1934	1935	1936	1931	1932	1933	1934	1935	1936
Austin	....	....	1,053	494	181	....	....	....	.42	.12	.04	....
Autocar	1,748	1,015	1,127	1,139	1,001	1,451	.56	.56	.46	.28	.20	.24
Brockway	1,685*	752	875	1,213	1,245	1,695	.54	.42	.36	.30	.24	.28
Chevrolet	99,600	60,784	99,880	157,507	167,129	204,344	31.74	33.69	40.62	38.99	32.73	33.41
Diamond T	2,483	2,250	4,139	5,440	6,454	8,750	.79	1.25	1.68	1.35	1.26	1.43
Dodge	13,518	8,744	28,034	48,252	61,488	85,295	4.31	4.85	11.40	11.94	12.04	13.95
Federal	1,523	1,167	1,360	1,962	2,190	2,930	.48	.65	.55	.49	.43	.48
Ford	138,854	66,937	62,397	128,250	185,848	177,244	44.25	37.10	25.38	31.76	36.39	28.98
G. M. C.	6,919	6,359	6,602	10,449	11,442	26,980	2.20	3.52	2.69	2.59	2.24	4.41
Indiana	....	957	1,252	729	862	1,705	....	.53	.51	.18	.17	.28
International	21,073	15,752	26,658	31,555	53,471	71,958	6.72	8.73	10.84	7.81	10.47	11.76
Mack	2,945	1,425	1,652	1,830	1,515	4,226	.94	.79	.67	.45	.30	.69
Reo	5,166	3,187	3,042	5,035	5,101	4,227	1.65	1.77	1.24	1.25	1.00	.69
Sterling	739	227	108	134	174	277	.23	.13	.04	.03	.03	.04
Stewart	1,394	867	684	736	880	1,280	.44	.48	.28	.18	.17	.21
Studebaker	3,495	2,430	2,407†	1,697	2,100	3,279	1.11	1.35	.98	.42	.41	.54
White	2,561	2,138	1,384	3,963	3,304	5,757	.82	1.19	.56	.98	.65	.94
Willys	3,131	1,132	233	25	2,280	2,441	1.00	.63	.09	.01	.45	.40
All Others	7,050	4,290	2,982	3,476	4,018	7,805	2.22	2.36	1.23	.86	.78	1.27
Total	313,884	180,413	245,869	403,886	510,683	611,644	100.00	100.00	100.00	100.00	100.00	100.00

* Includes Indiana. † Includes Rockne. ‡ Data from R. L. Polk & Co.

Automotive Sales Outlets by States*

STATE	Total Registered Motor Vehicles 1936	WHOLESALERS		DEALERS					REPAIR SHOPS			All Retail Outlets	Motor Vehicles Per Retail Outlet	All Truck Fleets (5 or more Vehicles)
		Wholesaler	Motor Vehicles Per Wholesaler	Passenger Car Dealers	Exclusive Truck Dealers	Total Car and Truck Dealers	Total Truck Dealers	Motor Vehicles Per Car and Truck Dealer	Car Dealer Service Stations	Independent Repair Shops	Total Repair Shops			
Alabama	271,142	62	4,373	358	13	371	246	730	353	380	733	763	355	228
Arizona	115,035	26	4,424	160	5	165	90	697	158	171	329	333	346	100
Arkansas	219,783	49	4,485	414	30	444	286	495	410	537	947	1,002	219	173
California	2,288,734	491	4,661	2,015	247	2,262	1,253	1,011	1,963	5,330	7,293	7,920	289	1,991
Colorado	307,658	62	4,962	477	37	514	295	598	469	594	1,063	1,132	272	243
Connecticut	394,870	102	3,871	590	44	634	293	623	603	769	1,372	1,513	261	642
Delaware	59,560	11	5,414	67	4	71	36	838	62	121	183	200	298	87
Dist. of Col.	213,230	30	7,107	101	9	110	49	1,938	100	152	252	281	758	257
Florida	386,905	102	3,793	431	66	497	317	778	418	574	992	1,124	344	409
Georgia	411,126	86	4,780	516	80	596	384	689	498	512	1,010	1,132	363	350
Idaho	133,037	28	4,751	285	49	334	197	398	311	221	532	569	234	51
Illinois	1,668,121	365	4,570	2,450	51	2,501	1,471	666	2,466	3,500	5,966	6,299	265	2,556
Indiana	899,031	189	4,756	1,263	79	1,342	761	669	1,279	1,668	2,947	3,056	294	912
Iowa	725,924	148	4,904	1,543	110	1,653	1,064	439	1,482	1,629	3,111	3,405	213	446
Kansas	577,906	130	4,445	1,226	71	1,297	899	445	1,138	1,279	2,417	2,643	218	309
Kentucky	365,000	85	4,294	633	31	664	417	429	634	564	1,198	1,282	285	273
Louisiana	307,186	61	5,035	329	28	357	246	860	314	414	728	813	378	362
Maine	190,237	41	4,639	352	21	373	229	510	352	529	881	868	219	141
Maryland	377,462	65	5,807	449	26	475	225	794	447	587	1,034	1,106	339	531
Massachusetts	816,180	228	3,579	1,098	26	1,124	277	726	1,040	1,454	2,494	2,610	313	1,586
Michigan	1,377,517	204	6,752	1,771	84	1,855	1,134	742	1,740	1,982	3,722	3,973	347	1,396
Minnesota	783,627	100	7,836	1,631	72	1,703	918	460	1,562	1,582	3,144	3,292	238	563
Mississippi	203,456	43	4,731	349	6	355	284	573	337	342	679	699	291	91
Missouri	809,615	183	4,424	1,136	61	1,197	756	676	2,107	2,035	4,142	3,388	238	913
Montana	167,150	31	5,391	400	42	442	281	378	415	347	762	796	210	115
Nebraska	415,870	91	4,570	1,107	14	1,121	753	370	1,003	1,233	2,236	2,417	172	293
Nevada	38,509	8	4,813	120	2	122	78	315	117	97	214	227	170	39
New Hampshire	121,000	29	4,172	241	20	261	157	463	243	353	596	609	199	94
New Jersey	943,412	178	5,300	1,005	70	1,075	572	877	1,011	2,078	3,089	3,280	288	1,401
New Mexico	108,379	21	5,160	146	13	159	126	681	140	144	284	313	346	44
New York	2,478,019	566	4,378	2,897	56	2,953	1,685	839	2,805	5,548	8,353	8,987	275	3,354
North Carolina	502,400	94	5,344	643	19	662	433	758	631	653	1,284	1,370	366	337
North Dakota	167,241	29	5,766	560	36	596	401	280	547	486	1,033	1,118	150	50
Ohio	1,777,048	378	4,701	2,475	13	2,488	1,387	714	2,463	2,668	5,131	5,364	331	1,824
Oklahoma	531,915	124	4,289	803	66	869	533	612	818	971	1,789	1,988	267	330
Oregon	327,876	76	4,314	454	26	480	287	683	429	883	1,312	1,479	222	238
Pennsylvania	1,887,226	392	4,814	3,176	157	3,333	1,656	566	3,200	4,495	7,695	8,038	235	2,642
Rhode Island	160,333	32	5,010	189	2	191	89	839	172	326	498	548	292	290
South Carolina	251,215	47	5,345	302	11	313	208	802	293	370	663	606	414	157
South Dakota	186,436	25	7,457	514	37	551	342	338	484	440	924	1,024	182	54
Tennessee	370,474	82	4,517	429	11	440	287	841	423	540	963	983	377	383
Texas	1,473,986	299	4,929	1,973	119	2,092	1,280	704	1,948	2,840	4,788	4,554	323	867
Utah	135,679	35	3,876	203	16	219	124	619	212	234	446	500	272	154
Vermont	83,313	26	3,204	196	10	206	126	404	199	363	562	586	142	46
Virginia	403,787	73	5,531	647	23	670	347	602	637	937	1,574	1,640	246	356
Washington	500,076	128	3,906	734	32	766	431	652	692	1,393	2,085	2,199	228	492
West Virginia	254,172	69	3,683	500	22	522	319	486	492	506	998	1,043	243	309
Wisconsin	821,605	136	6,041	1,744	92	1,836	816	447	1,772	1,446	3,218	3,371	244	754
Wyoming	76,917	14	5,494	186	14	200	8	385	192	146	338	365	210	66
TOTAL	28,086,380	5,874	†4,781	41,288	2,173	43,461	24,853	†646	41,581	56,423	†98,004	102,808	†273	29,299

† Average. * Chilton Trade List count as of January, 1937.

The Roll Call of Passenger Car Dealers†

(End-of-the-Year Figures)

	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
Number of dealers	51,440	50,984	51,560	47,144	42,881	38,092	34,129	35,977	39,769	41,278
Number of representations*	62,387	62,872	63,054	62,741	59,173	53,437	50,028	53,602	59,756	59,354
Number of single-line dealers	45,464	40,314	41,368	34,044	28,594	25,006	20,965	21,659	23,199	25,246
Number of multiple-line dealers	5,976	10,670	10,192	13,100	14,287	13,086	13,164	14,316	16,570	16,032
Number of representations by multiple-line dealers	16,923	22,558	21,686	28,697	30,579	28,431	29,063	31,943	36,557	34,108

* There are more representatives than dealers because some dealers represent more than one line.
† Chilton Trade List.

Passenger Car Representations by Makes—By Years†

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
Plymouth	....	....	....	....	7,218	7,351	6,276	7,642	9,537	11,487	11,072
Chevrolet	7,738	8,381	8,987	9,553	9,558	9,412	9,039	8,885	8,578	8,667	8,776
Ford	9,376	9,375	8,731	8,598	8,833	8,735	8,280	7,480	7,388	7,948	8,301
Total (All Three)	17,114	17,756	17,718	18,151	25,609	25,498	23,595	24,007	25,503	28,102	28,149
Chrysler	2,975	3,455	3,647	3,337	3,007	3,454	2,999	3,511	4,360	4,309	4,097
Dodge	3,692	3,667	3,212	2,994	2,842	2,663	2,722	2,772	3,297	3,772	4,087
Pontiac	2,627	3,273	4,386	4,545	3,435	2,887	2,503	2,336	2,314	2,791	3,413
Hudson-Terraplane	3,842	3,754	3,508	3,488	2,863	2,270	1,761	1,842	2,641	3,023	3,263
De Soto	....	....	307	1,133	1,369	1,234	1,252	1,359	1,880	3,406	2,888
Buick	3,614	3,597	3,533	3,241	3,003	2,608	2,472	2,273	2,303	2,465	2,516
Oldsmobile	1,685	1,845	1,656	1,668	1,592	1,426	1,351	1,418	1,611	2,227	2,454
Studebaker	2,850	2,546	2,262	2,242	1,971	1,999	1,927	1,733	1,986	1,832	2,080
Nash	2,196	2,280	1,986	2,123	1,884	1,677	1,430	1,201	1,283	1,400	1,314
Packard	750	739	762	776	721	682	624	540	486	843	1,128
Graham	1,955	1,389	1,492	1,751	1,469	1,206	1,079	920	782	1,120	958
Cadillac	823	815	762	722	700	654	602	563	541	649	648
Willys (Overland)	3,804	4,295	4,669	4,751	3,783	2,904	2,739	....	....	....	580
Auburn	448	452	525	702	581	1,117	780	477	518	499	250
Pierce-Arrow	271	244	214	266	312	449	385	350	243	174	118
Total	31,532	32,351	32,921	33,739	29,532	27,230	24,626	21,295	24,245	28,510	29,794
Miscellaneous and Unclassified	11,732	10,280	12,233	11,164	7,600	7,445	5,216	4,726	3,854	3,144	1,411
Grand Total Representations	60,378	62,387	62,872	63,054	62,741	59,173	53,437	50,028	53,602	59,756	59,354

† Chilton Trade List count.

Note

The term "Passenger Car Representation" refers to retail outlets of any given make. A dealer organization often handles more than one make of passenger car.

Passenger Car Dealer Representation—by Population Groups—by Makes*

(As of January 1, 1937)

CAR MAKE	Population Divisions 0-1000	1000-2500	2500-5000	5000-10,000	10,000-25,000	25,000-50,000	50,000-100,000	Over 100,000	Total Dealer Representation
Auburn	11	11	9	25	44	41	25	84	250
Buick	264	428	465	447	455	164	102	191	2516
Cadillac	10	22	55	96	184	100	75	106	648
Chevrolet	3438	2150	1068	712	578	184	136	510	8776
Chrysler	975	883	631	511	487	171	104	325	4097
De Soto	608	492	383	381	409	172	103	340	2888
Dodge	894	834	701	553	476	168	104	357	4087
Ford	2815	2082	1058	717	586	212	162	669	8301
Graham	74	81	101	127	178	102	84	211	958
Hudson-Terraplane	557	568	496	463	435	175	127	442	3263
Nash	150	134	156	210	269	124	93	178	1314
Oldsmobile	224	440	436	412	426	161	100	255	2454
Packard	36	53	131	184	290	142	87	205	1128
Pierce-Arrow	2	3	5	12	16	15	14	51	118
Plymouth	2477	2209	1715	1445	1362	521	311	1032	11,072
Pontiac	481	703	589	517	467	184	119	353	3413
Studebaker	239	265	329	350	383	173	109	232	2080
Willys	124	59	68	54	94	45	29	107	580
Miscellaneous	150	154	131	182	262	163	109	260	1411
SUMMARY	13,529	11,571	8,527	7,398	7,401	3,027	1,993	5,908	59,354
Per Cent of Total	22.80	19.49	14.37	12.46	12.47	5.10	3.36	9.95	100.00

*Chilton Trade List count.

Passenger Car Dealer Representation—By Population Groups—By States*

(As of January 1, 1937)

	0-1000	1000-2500	2500-5000	5000-10,000	10,000 25,000	25,000 50,000	50,000 100,000	Over 100,000	Total Dealer Representation
Alabama	60	119	82	46	108	..	32	39	486
Arizona	29	61	73	55	..	41	..	..	259
Arkansas	94	130	135	73	69	18	23	..	542
California	383	445	454	481	434	193	149	381	2920
Colorado	144	147	84	112	75	21	18	66	667
Connecticut	87	120	112	110	184	108	47	106	874
Delaware	16	27	27	..	..	..	..	24	94
Dist. of Col.	..	..	..	..	..	..	..	144	144
Florida	52	97	125	127	88	75	..	77	641
Georgia	84	200	129	119	95	19	55	34	735
Idaho	120	92	102	69	34	..	..	..	417
Illinois	693	647	420	456	403	249	136	510	3514
Indiana	338	300	262	284	224	143	58	189	1778
Iowa	750	515	390	163	165	99	66	35	2183
Kansas	587	402	235	144	234	16	21	49	1688
Kentucky	198	237	159	123	81	69	20	53	940
Louisiana	66	89	106	70	39	37	20	32	459
Maine	67	89	102	100	71	36	21	..	486
Maryland	235	115	98	17	38	46	..	120	669
Massachusetts	74	97	146	227	359	188	119	332	1542
Michigan	586	505	294	281	299	117	153	327	2562
Minnesota	904	489	309	196	173	..	..	250	2321
Mississippi	119	123	102	28	111	30	..	..	513
Missouri	353	385	227	179	150	20	37	238	1589
Montana	234	158	39	87	70	41	..	..	629
Nebraska	653	406	120	116	88	..	34	52	1469
Nevada	58	58	37	17	21	..	..	..	191
New Hampshire	48	76	65	19	84	28	24	..	344
New Jersey	122	171	150	267	320	129	102	169	1430
New Mexico	54	42	51	43	20	17	..	..	227
New York	765	742	602	387	660	174	123	813	4266
North Carolina	138	199	144	143	148	54	91	..	917
North Dakota	476	140	16	72	55	19	..	..	778
Ohio	750	607	428	451	421	230	64	629	3580
Oklahoma	175	283	173	209	154	33	..	59	1086
Oregon	161	141	127	127	66	20	..	53	695
Pennsylvania	935	622	773	687	813	213	260	443	4746
Rhode Island	19	32	15	11	37	66	28	68	276
South Carolina	52	80	64	92	52	34	36	..	410
South Dakota	312	219	73	12	66	16	..	..	698
Tennessee	102	114	139	117	32	15	..	117	636
Texas	480	733	509	454	257	83	96	172	2784
Utah	62	78	66	40	16	19	..	30	311
Vermont	66	80	33	60	52	..	..	..	291
Virginia	336	158	106	89	76	57	20	58	900
Washington	302	205	171	37	170	39	..	133	1057
West Virginia	166	176	96	141	80	37	76	..	772
Wisconsin	960	495	330	239	165	177	64	117	2547
Wyoming	64	125	27	42	33	..	..	..	291
TOTALS	13,529	11,571	8,527	7,399	7,390	3,026	1,993	5,919	59,354

*Chilton Trade List count.

Multiple-Line Passenger Car Dealers*

(As of January 1, 1937.)

Cars	Dealers Handling This Make Exclusively	Multiple-Line Dealers Handling This Make and One or More Other Makes	Total Car Representations
Auburn	136	114	250
Buick	666	1850	2516
Cadillac	110	538	648
Chevrolet	7242	1534	8776
Chrysler	....	4097	4097
De Soto	....	2888	2888
Dodge	....	4087	4087
Ford	7464	837	8301
Graham	641	317	958
Hudson-Terraplane	2594	669	3263
Nash	943	371	1314
Oldsmobile	1101	1353	2454
Packard	546	582	1128
Pierce-Arrow	28	90	118
Plymouth	....	11,072	11,072
Pontiac	1645	1768	3413
Studebaker	1473	607	2080
Willys	251	329	580
Miscellaneous	406	1005	1411
Totals	25,246	34,108	59,354

*Chilton Trade List count.

Analysis of Passenger Car Dealers—By States*

States	Exclusive Dealer Representation	Combined Dealer Rep. handling two or more cars	Total Dealer Representation	Total Dealers (no duplication)	Dealers handling two or more makes
Alabama	200	286	486	358	158
Arizona	90	169	259	160	70
Arkansas	281	261	542	414	133
California	1158	1762	2920	2015	857
Colorado	298	369	667	477	179
Connecticut	336	538	874	590	254
Delaware	42	52	94	67	25
District of Columbia	62	82	144	101	39
Florida	262	379	641	431	169
Georgia	333	402	735	516	183
Idaho	168	249	417	285	117
Illinois	1505	2009	3514	2450	945
Indiana	801	977	1778	1253	452
Iowa	987	1196	2183	1543	556
Kansas	804	884	1688	1226	422
Kentucky	373	567	940	633	260
Louisiana	213	246	459	329	116
Maine	238	248	486	352	114
Maryland	246	423	669	449	203
Massachusetts	696	846	1542	1098	402
Michigan	1107	1455	2562	1771	664
Minnesota	1022	1299	2321	1631	609
Mississippi	228	285	513	349	121
Missouri	752	837	1589	1136	384
Montana	216	413	629	400	184
Nebraska	653	816	1469	1107	454
Nevada	67	124	191	120	53
New Hampshire	154	190	344	241	87
New Jersey	612	818	1430	1005	393
New Mexico	80	147	227	146	66
New York	1665	2601	4266	2897	1232
North Carolina	400	517	917	643	243
North Dakota	360	418	778	560	200
Ohio	1522	2058	3580	2475	953
Oklahoma	545	541	1086	803	258
Oregon	254	441	695	454	200
Pennsylvania	1806	2940	4746	3176	1370
Rhode Island	114	162	276	189	75
South Carolina	211	199	410	302	91
South Dakota	343	355	698	514	171
Tennessee	251	385	636	429	178
Texas	1264	1520	2784	1973	709
Utah	112	199	311	203	91
Vermont	118	173	291	196	78
Virginia	419	481	900	647	228
Washington	451	606	1057	734	283
West Virginia	267	505	772	500	233
Wisconsin	1061	1486	2547	1744	683
Wyoming	99	192	291	186	87
Total	25,246	34,108	59,354	41,278	16,032

*Chilton Trade List count.

Dealer Representations by Makes by States*

(As of January 1, 1937)

STATES	Auburn	Buick	Cadillac	Chevrolet	Chrysler	De Soto	Dodge	Ford	Graham	Hudson-Terraplane	Nash	Oldsmobile	Packard	Pierce-Arrow	Plymouth	Pontiac	Studebaker	Willys	Miscellaneous	TOTAL
Alabama	3	16	5	96	22	21	36	96	3	23	6	22	11	1	79	17	9	10	10	486
Arizona	1	16	10	29	13	15	17	33	2	8	10	12	3	.....	45	23	15	4	3	259
Arkansas	2	16	2	109	34	21	31	110	3	39	10	14	3	1	86	25	24	2	10	542
California	10	136	44	310	163	157	220	367	74	127	56	141	68	10	540	170	142	84	101	2,920
Colorado	3	36	4	93	52	24	51	95	10	37	20	24	9	2	127	38	26	8	6	667
Connecticut	9	34	17	84	56	53	56	86	37	42	26	37	26	4	165	59	38	9	36	874
Delaware	2	7	.....	13	2	6	7	14	.....	2	2	3	3	.....	15	11	3	.....	4	94
District of Columbia	2	2	1	8	8	8	10	25	2	10	2	9	7	1	26	8	4	1	10	144
Florida	3	33	8	88	40	25	47	106	8	23	8	26	22	1	112	36	16	14	25	641
Georgia	.....	31	8	151	71	20	28	151	2	24	4	25	15	2	119	29	18	5	32	735
Idaho	.....	13	1	58	36	18	26	60	14	27	5	16	5	.....	80	21	24	3	10	417
Illinois	22	185	45	501	207	181	262	477	52	189	102	152	70	2	650	196	128	15	80	3,514
Indiana	10	80	16	257	118	88	103	242	32	122	29	92	39	3	309	121	72	10	35	1,778
Iowa	3	95	9	433	168	96	149	311	20	114	40	86	26	.....	413	104	73	13	30	2,183
Kansas	5	65	6	279	115	80	122	266	15	111	34	63	20	.....	317	105	53	8	24	1,688
Kentucky	2	36	4	135	71	41	70	139	15	47	12	45	12	1	182	65	36	2	25	940
Louisiana	1	16	6	94	30	17	34	94	2	15	7	18	3	.....	81	19	6	3	13	459
Maine	1	17	9	66	30	13	36	77	10	33	24	16	12	2	79	28	22	1	10	486
Maryland	2	25	7	74	49	39	59	85	9	37	10	25	19	2	147	40	25	4	11	699
Massachusetts	11	54	35	172	93	76	110	162	45	101	67	88	52	5	279	90	55	12	35	1,542
Michigan	12	131	35	383	131	108	182	358	47	190	52	122	60	1	421	170	62	25	72	2,562
Minnesota	2	88	6	403	199	100	165	320	34	146	26	74	33	3	464	149	67	13	29	2,321
Mississippi	.....	15	6	110	43	21	25	99	1	26	6	15	13	.....	89	20	9	2	13	513
Missouri	6	60	18	309	106	68	112	237	21	67	35	71	21	2	286	102	42	10	16	1,589
Montana	4	29	7	96	50	16	42	83	7	33	22	27	2	1	108	30	35	8	29	629
Nebraska	4	52	4	262	124	75	114	240	4	65	24	39	12	1	313	62	51	10	13	1,469
Nevada	.....	12	2	23	13	8	10	27	3	10	12	4	2	2	31	14	11	4	3	191
New Hampshire	3	15	5	54	18	14	30	42	9	20	12	15	8	.....	62	15	13	2	7	344
New Jersey	9	74	30	162	90	72	96	182	27	76	42	68	40	7	258	93	50	13	41	1,430
New Mexico	1	13	2	37	20	8	12	35	.....	16	2	9	4	.....	40	13	9	2	4	227
New York	25	181	86	505	289	219	305	515	86	198	92	197	113	22	813	281	165	45	129	4,266
North Carolina	2	43	11	162	75	38	65	144	7	42	9	39	19	.....	178	49	23	6	5	917
North Dakota	1	23	2	167	74	20	46	151	4	47	13	11	6	.....	140	27	26	6	14	778
Ohio	23	136	33	456	235	226	231	445	76	235	95	157	80	4	692	201	131	42	82	3,580
Oklahoma	4	52	7	209	65	54	72	180	4	57	8	42	7	3	191	79	31	9	12	1,086
Oregon	1	25	10	97	45	36	42	81	24	37	23	28	11	1	123	38	24	33	18	695
Pennsylvania	34	224	58	538	365	251	348	491	111	232	160	198	109	16	964	285	192	45	125	4,746
Rhode Island	.....	9	6	31	20	18	17	26	9	22	10	14	7	1	55	12	6	3	10	276
South Carolina	.....	17	2	89	24	12	26	81	1	24	.....	18	8	.....	62	28	12	2	4	410
South Dakota	1	26	3	142	67	31	39	138	3	33	7	11	.....	5	137	26	19	1	9	698
Tennessee	3	23	7	100	50	33	44	96	3	39	6	27	8	1	127	29	22	6	12	636
Texas	6	103	26	480	228	126	165	453	18	169	35	96	37	4	519	143	91	18	67	2,784
Utah	.....	9	1	33	9	29	24	44	12	19	8	12	5	.....	62	9	17	5	13	311
Vermont	2	10	3	42	19	14	21	44	3	18	12	11	5	.....	54	16	9	1	7	291
Virginia	2	39	3	145	70	44	56	174	7	43	8	34	14	2	170	53	13	7	16	900
Washington	2	34	9	135	57	52	88	145	28	69	15	52	17	2	197	52	42	35	26	1,057
West Virginia	4	31	10	100	63	43	47	93	14	41	14	38	18	2	153	46	24	4	27	772
Wisconsin	7	113	17	422	148	138	170	338	36	141	86	98	39	1	456	153	86	13	85	2,547
Wyoming	.....	16	2	34	22	15	19	43	4	17	6	13	5	.....	56	15	11	2	11	291
TOTAL	250	2,516	648	8,776	4,097	2,888	4,087	8,301	958	3,263	1,314	2,454	1,128	118	11,072	3,413	2,080	580	1,411	59,354

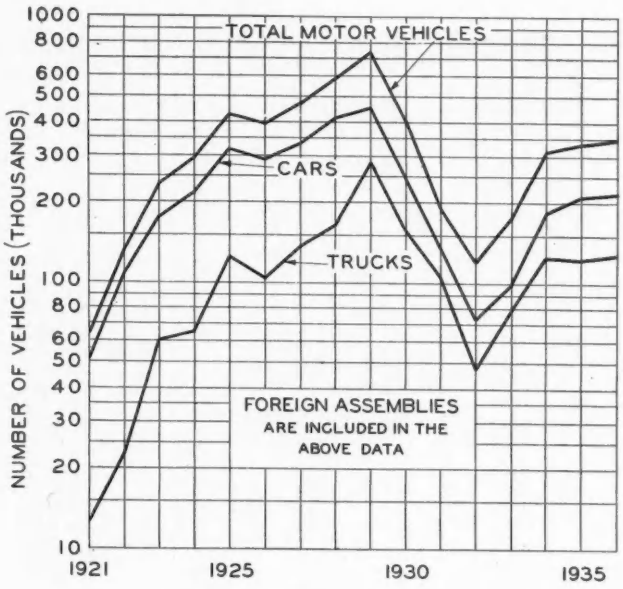
*Chilton Trade List count.

Federal Taxes Levied on Automotive Utilities

(As of December 31)

Source of Revenue	Amount Collected (1) 1933	1934	1935	1936
Lubricating Oils	$22,289,625	$24,843,489	$28,818,919	$29,012,547
Gasoline	181,125,988	170,109,269	172,262,483	186,321,448
Transportation of oil by pipe line	10,237,275	10,008,692	9,256,287	10,423,608
Crude petroleum processed, etc.	.....	810,695	1,691,117	859,758
Automobile trucks	3,046,826	5,261,207	6,674,268	8,044,343
Automobiles and motorcycles	22,475,887	31,533,516	42,262,453	56,475,924
Auto parts and accessories	4,443,071	5,885,972	7,019,009	8,747,946
Tires	19,816,533	20,003,544	22,660,695	31,837,511
Inner tubes	4,019,586	4,700,534	5,441,753	6,404,043
Total (all automotive)	$267,454,791	$273,156,918	$296,086,984	$338,127,128
Per cent of all revenue collections	.....	9.8	11.0	8.9
State Taxes				
Gasoline (2)	$519,403,450	$566,642,000	$616,851,671	$677,915,239
Registration fees (2)	301,932,039	312,929,000	322,481,415	339,909,468
Grand Total Federal and State Taxes (3)	$1,088,790,280	$1,152,727,918	$1,235,420,070	$1,355,951,835
Average Federal and State tax per motor vehicle (2)	$45.60	$46.40	$47.20	$48.30

(1) From monthly statements of Bureau of Internal Revenue.
(2) Bureau of Public Roads.
(3) Does not include Personal Property Taxes which for 1935 amounted to approximately $73,500,000.
* Compiled by National Highway Users Conference.



This chart shows the trend of U. S. exports of passenger cars, trucks and total motor vehicles, plus shipments for Foreign Assemblies.

U. S. A

Value of Leading U. S. Automotive Exports—1936*

Passenger Cars	$107,483,285
Passenger Cars, Used	775,341
Trucks, Buses and Chassis	56,765,715
Trucks and Buses, Used	194,926
Fire Engines	53,848
Trailers	1,109,287
Engines, Passenger Car	3,305,964
Engines, Truck & Bus	2,151,545
Engines, Other	6,191
Parts for Assembly	41,377,923
Parts for Replacement, N.E.S.	27,297,209
Truck and Bus Casings	3,991,677
Automobile Casings	7,707,098
Inner Tubes	1,082,463
Solid Tires	180,553
Tire Sundries and Repair Material	672,590
Aeronautical Products	23,055,761
Total	$277,211,374
CANADIAN	
Cars	$15,289,140
Trucks	4,904,122
Parts and Accessories	2,899,946
Tires	7,342,415
Total	$30,435,623
Grand Total Exports of American Manufacture	$307,646,997

Foreign Sales of American Motor Vehicles

	Passenger Cars			Trucks			Total Motor Vehicles		
	U. S. Exports, Inc. Foreign Assemblies	Canadian Output	Total Cars	U. S. Exports, Inc. Foreign Assemblies	Canadian Output	Total Trucks	U. S. Exports, Inc. Foreign Assemblies	Canadian Output	Motor Vehicles
1921	51,050	61,098	112,148	12,569	5,148	17,717	63,619	66,246	129,865
1922	108,426	94,904	203,330	22,473	7,149	29,622	130,899	102,053	232,952
1923	175,158	129,228	304,386	60,025	17,210	77,235	235,183	146,438	381,621
1924	217,169	117,765	334,934	75,980	17,481	93,461	293,149	135,246	428,395
1925	316,093	135,573	451,666	112,594	26,397	138,991	428,687	161,970	590,657
1926	289,135	164,856	453,991	104,309	39,871	144,180	393,444	204,727	598,171
1927	331,959	146,827	478,786	137,509	32,227	169,736	469,468	179,054	648,522
1928	418,845	196,741	615,586	163,919	45,641	209,560	582,764	242,382	825,146
1929	451,079	207,498	658,577	283,132	55,797	338,929	734,211	263,295	997,506
1930	247,764	125,442	373,206	157,951	28,750	186,701	405,715	154,192	559,907
1931	134,048	65,093	199,141	107,509	17,528	125,037	241,557	82,621	324,178
1932	72,889	50,694	123,583	47,350	10,095	57,445	120,239	60,789	181,028
1933	98,155	53,849	152 004	78,428	12,003	90,431	176,583	65,852	242,435
1934	184,156	92,647	276,803	126,366	24,205	150,571	310,522	116,852	427,374
1935	210,367	135,562	345,929	124,474	37,315	161,789	334,841	172,877	507,718
1936	217,999	131,308	349,307	128,499	31,014	159,513	346,494	162,322	508,816

U. S. Exports of Parts and Accessories—1936*

COUNTRIES	Auto Parts for Assembly	Auto Pistons	Auto Piston Rings	Auto Differential and Transmission Gears	Spark Plugs	Auto and Truck Springs	Asbestos Brake Lining		Auto Parts for Replacement N. E. S.	Auto Accessories N. E. S.	Total Exports of Parts and Accessories
							Molded and Semi-Molded	Not Molded			
Europe	$8,585,234	$107,155	$126,231	$225,914	$818,312	$30,712	$151,172	$52,842	$8,148,266	$384,709	$20,037,629
North America	24,050,744	165,243	201,492	138,853	125,615	73,624	186,931	133,740	4,800,676	2,283,531	35,130,429
South America	4,838,454	82,968	106,345	52,940	166,562	84,002	172,856	44,769	4,721,377	206,431	11,748,688
Asia	3,338,196	35,105	40,721	67,235	234,573	136,190	63,121	15,822	4,013,558	181,362	9,121,430
Oceania	321,372	6,564	2,676	10,557	20,718	977	44,627	24,403	1,479,911	126,602	2,069,897
Africa	231,819	48,586	26,714	27,926	68,268	167,768	52,359	5,391	3,372,445	330,811	4,395,240
TOTAL	$41,365,819	$445,621	$504,179	$523,425	$1,434,048	$493,273	$671,066	$276,967	$26,536,233	$3,513,446	$82,503,313
Alaska											147,716
Hawaii	9,830	5,567	6,420	5,204	22,198	15,193	17,280	7,256	451,449	62,632	620,853
Puerto Rico	2,274	701	2,598	2,030	8,427	20,879	9,637	5,862	309,527	9,789	376,359
GRAND TOTAL	$41,377,923	$451,889	$513,197	$530,659	$1,464,673	$529,345	$697,983	$290,085	$27,297,209	$3,585,867	$83,648,241

*Automotive Division—Bureau of Foreign and Domestic Commerce.

Automotive Exports

Leading Automotive Export Markets—1936

U. S. Factory Shipments only—does not include Canadian exports or local assemblies.

Passenger Cars and Chassis

Country of Destination	Value	Number
Union of South Africa	$19,829,696	35,817
Australia	6,604,794	17,804
Belgium	6,318,740	11,315
United Kingdom	6,174,043	8,813
Argentina	5,679,390	11,047
Canada	5,511,073	7,771
Sweden	5,414,905	10,130
Mexico	4,745,841	7,384
Japan	3,755,490	7,966
Brazil	3,328,234	5,815
New Zealand	3,241,259	6,469
Cuba	2,488,556	3,655
British India	2,209,556	3,800
Philippine Islands	2,189,238	3,034
Egypt	1,713,111	2,457
Colombia	1,696,796	2,365
Puerto Rico	1,674,851	2,470
Venezuela	1,646,621	2,640
Netherlands	1,424,891	1,958
Netherland India	1,258,693	2,060
Total	$86,905,778	154,770
Total All Countries	$107,484,335	186,542

Trucks, Buses and Chassis

Country of Destination	Value	Number
Mexico	$3,968,705	5,799
Union of South Africa	3,721,133	7,299
Australia	3,454,618	7,748
Brazil	2,983,054	5,904
Japan	2,594,096	7,769
British India	2,388,382	6,552
Argentina	2,379,183	5,324
Canada	2,202,623	2,177
Venezuela	1,911,878	3,134
Sweden	1,854,727	4,918
Egypt	1,656,936	3,450
Belgium	1,654,408	4,223
Iran	1,584,886	1,765
New Zealand	1,305,346	2,606
Colombia	1,287,317	1,992
Philippine Islands	1,259,788	2,035
Cuba	1,255,798	2,202
United Kingdom	1,219,328	2,327
Peru	1,027,608	1,761
Spain	1,000,548	2,189
Total	$40,710,964	81,194
Total All Countries	$56,765,713	108,167

American Passenger Car Exports*

COUNTRIES	Not over $850		Over $850, not over $1200		Over $1200, not over $2000		Over $2000		Total 1936 Passenger Cars		Total 1935 Passenger Cars	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
Europe	37,422	$19,887,943	4,110	$3,922,000	661	$1,035,516	409	$1,023,487	42,602	$25,868,946	44,913	$25,868,679
North America	19,415	11,674,105	2,294	2,179,425	415	617,639	235	642,476	22,359	15,113,645	16,502	10,540,340
South America	24,786	13,426,326	1,735	1,688,110	204	291,390	63	150,483	26,788	15,556,309	22,955	12,881,781
Asia	19,468	10,271,190	1,365	1,332,451	275	412,249	105	278,544	21,213	12,294,434	24,142	13,851,788
Oceania	23,834	9,379,753	400	372,168	61	83,149	18	41,882	24,313	9,876,952	27,649	11,091,460
Africa	40,648	22,192,250	1,857	1,746,929	203	285,123	51	137,912	42,759	24,362,214	36,459	20,303,140
Total	165,573	$86,831,567	11,761	$11,241,083	1,819	$2,725,066	881	$2,274,784	180,034	$103,072,500	172,620	$94,537,188
Alaska									379	296,436	317	226,188
Hawaii	3,413	2,176,053	192	182,640	49	68,878	5	12,977	3,659	2,440,548	4,691	3,045,057
Puerto Rico	2,166	1,352,831	271	263,287	25	40,772	8	17,961	2,470	1,674,851	2,342	1,533,978
Grand Total	171,152	$90,360,451	12,224	$11,687,010	1,893	$2,834,716	894	$2,305,722	186,542	$107,484,335	179,970	$99,342,411

American Truck Exports*

COUNTRIES	Under 1 Ton		1 Ton and not over 1½ Tons		Over 1½ Tons and not over 2½ Tons		Over 2½ Tons		Bus Chassis		Total 1936 Trucks and Buses		Total 1935 Trucks and Buses	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
Europe	2,801	$902,767	14,444	$6,037,285	3,826	$2,581,974	679	$819,548	708	$392,807	22,458	$10,734,379	24,276	$11,924,503
North America	2,182	1,091,770	6,817	4,005,178	2,377	2,098,909	586	1,300,263	89	93,059	12,051	8,589,179	7,854	5,717,040
South America	1,686	703,149	16,684	8,428,877	1,833	1,314,294	321	558,445	197	142,147	20,521	11,146,912	16,095	8,503,172
Asia	1,488	499,191	17,966	7,152,754	2,243	1,829,548	684	1,052,393	1,026	317,526	23,407	11,044,640	23,111	10,549,745
Oceania	3,601	1,237,847	4,823	2,145,962	1,795	1,213,694	95	117,382	67	62,318	10,381	4,777,203	8,970	4,214,637
Africa	3,965	1,559,920	10,606	5,038,881	1,986	1,521,823	447	465,873	42	22,826	17,046	8,609,323	17,535	9,563,939
TOTAL	15,723	$5,994,644	71,340	$33,002,165	3,860	$10,560,242	2,812	$4,313,902	2,129	$1,030,683	105,864	$54,901,636	98,841	$50,473,036
Alaska											238	210,465	220	176,177
Hawaii	317	170,074	383	248,610	98	93,643	84	266,233	3	4,518	885	783,078	661	805,335
Puerto Rico	190	97,946	765	485,805	179	151,432	18	46,281	30	89,070	1,182	870,534	746	541,390
GRAND TOTAL	16,230	$6,262,664	72,488	$33,736,580	14,137	$10,805,317	2,914	$4,628,416	2,162	$1,124,271	108,167	$56,765,713	100,668	$51,995,938

*Automotive Division—Bureau of Foreign and Domestic Commerce.

Aeronautical Data

U. S. Airplane and Engine Production*

	AIRPLANES				AIRPLANE ENGINES			
	Military		Commercial		Military		Commercial	
	Units	Value	Units	Value	Units	Value	Units	Value
1926	532	$6,154,708	604	$2,716,319	842	$4,080,571	....	.....
1927	621	7,528,383	1,565	6,976,616	1,397	6,550,533	....	.....
1928	1,219	19,066,379	3,542	17,194,298	2,620	12,407,920	632	$979,600
1929	677	10,832,544	5,357	33,624,756	1,861	8,600,530	5,517	17,895,300
1930	747	10,723,720	1,937	10,746,042	1,841	10,823,423	1,925	6,255,493
1931	812	12,971,625	1,582	6,655,738	1,800	10,417,718	1,976	4,192,600
1932	593	10,389,316	549	2,337,899	1,085	6,370,678	815	2,898,371
1933	466	9,784,643	591	6,180,900	860	4,986,168	1,120	4,724,441
1934	437	8,836,509	772	9,957,602	688	5,162,710	2,048	10,270,500
1935	459	11,418,382	1,109	10,410,334	991	6,180,311	1,974	6,511,298
1936	1,141	27,836,199	1,559	12,379,835	1,804	14,569,708	2,433	7,520,900

* Aeronautical Chamber of Commerce of America, Inc.

1936 Production of Aircraft Engines—By Types*

HP.	MILITARY Units	MILITARY Value	COMMERCIAL Units	COMMERCIAL Value
Under 75	....	....	804	$297,822
75-125	....	....	266	242,836
125-175	2	$3,450	160	227,028
176-225	23	46,300	100	200,188
226-300	147	358,365	293	833,482
301-400	55	239,800	21	89,150
401-500	136	601,610	158	691,900
501-600	99	536,311	63	371,190
601-700	40	347,500	33	193,380
701 up	1,302	12,436,372	535	4,373,924
Total	1,804	$14,569,708	2,433	$7,520,900

* Aeronautical Chamber of Commerce of America, Inc.

1936—U. S. Airplane Production

By Types*

TYPE	Units	Value
Open Cockpit Biplane		
1 place	....	.....
2 places	5	$13,563
3 places	1	7,734
Over 3 places	....	.....
Total	6	$ 21,297
Cabin—Single-Engined Biplane	211	1,192,095
Cabin—Multi-Engined Biplane	....	.....
Total Biplanes	217	$1,213,392
Open Cockpit Monoplanes		
1 place	1	1,258
2 places	39	105,250
3 places	....	.....
Over 3 places	....	.....
Total	40	$ 106,508
Cabin—Single-Engined Monoplanes		
1 place	22	75,595
2 places	888	1,143,241
3 places	82	330,280
4 places	175	592,781
5 places	3	31,920
6 places	2	32,990
7 places	3	43,000
Over 7 places	....	.....
Total	1,175	$2,250,207
Cabin—Multi-Engined Monoplanes	93	5,795,755
Total Monoplanes	1,308	$8,152,470
Seaplanes	10	958,705
Amphibions	23	2,045,268
Autogiros	1	10,000
Total	34	$3,013,973
Total—Commercial	1,559	$12,379,835
Total—U. S. Military	1,141	$27,836,199
Grand Total	2,700	$40,216,034

* Aeronautical Chamber of Commerce of America, Inc.

Sales of Aircraft Parts*

AIRCRAFT

Year	Military	Commercial	Miscellaneous	Total
1930	$4,108,167	$3,442,573	$475,002	$8,025,742
1931	4,627,838	1,912,481	499,857	7,039,932
1932	3,701,838	974,439	348,770	5,025,047
1933	3,127,255	945,336	140,340	4,212,931
1934	2,168,856	1,540,564	436,425	4,145,845
1935	2,857,201	2,090,176	755,698	5,703,075
1936	4,445,852	3,147,964	634,373	8,288,189

AIRCRAFT ENGINES

Year	Military	Commercial	Miscellaneous	Total
1930	$2,231,370	$2,487,576	$494,216	$5,213,162
1931	3,904,739	1,747,654	267,400	5,919,793
1932	3,699,848	1,241,878	73,644	5,015,370
1933	1,961,033	1,567,604	67,843	3,596,480
1934	1,543,730	2,517,592	299,377	4,360,699
1935	2,351,238	2,289,244	351,236	4,991,718
1936	3,630,224	2,327,394	619,101	6,575,719

* Aeronautical Chamber of Commerce of America, Inc.

7800 Airplane Engines Produce 1,500,000 HP.

Based on statement issued by Bureau of Air Commerce showing Name and Horsepower of Engine or Engines in Each Licensed Civil Aircraft, as of September 1, 1936.

ENGINE MAKE	HORSEPOWER RATING											Auto-giros	Total Engines in Air-planes	Total Engines in Auto-giros	Grand Total of Engines
	25 to 49	5 to 99	100 to 199	200 to 299	300 to 399	400 to 499	500 to 599	600 to 699	700 to 799	800 to 899	900 to 999	75 to 420			
Aeromarine	16	11	...	...	...	...	...	...	...	...	...	...	27	0	27
Aeronca	365	...	...	...	...	...	...	...	...	...	...	...	365	0	365
Anzani	1	1	...	...	...	...	...	...	...	...	...	...	2	0	2
Arrow	...	1	...	...	...	...	...	...	...	...	...	...	1	0	1
Axelson	...	...	8	...	...	...	...	...	...	...	...	...	8	0	8
Brownback	...	4	...	...	...	...	...	...	...	...	...	...	4	0	4
Church	2	...	...	...	...	...	...	...	...	...	...	...	2	0	2
Cirrus	...	68	102	...	...	...	...	...	...	...	...	...	170	0	170
Comet	...	...	20	...	...	...	...	...	...	...	...	...	20	0	20
Continental	347	...	73	154	...	...	...	...	...	...	...	7	574	7	581
Crosley	...	...	1	...	...	...	...	...	...	...	...	...	1	0	1
Curtiss	...	945	...	...	...	1	...	7	...	...	...	...	1,314	0	1,314
Fairchild	...	...	4	...	...	...	...	...	...	...	...	...	4	0	4
Ford	1	1	2	...	...	...	...	...	...	...	...	...	4	0	4
Genet	...	28	...	...	...	...	...	...	...	...	...	...	28	0	28
Gipsy	...	101	2	...	...	...	...	...	...	...	...	...	103	0	103
Heath	2	...	...	...	...	...	...	...	...	...	...	...	2	0	2
Hess-Warrior	...	...	6	...	...	...	...	...	...	...	...	...	6	0	6
Hispano-Suiza	...	...	88	...	...	...	...	...	...	...	...	...	88	0	88
Jacobs	...	11	21	208	...	...	...	...	...	...	...	1	240	1	241
Kinner	...	...	602	7	3	...	...	...	...	...	...	23	612	23	635
Lambert	...	157	...	...	...	...	...	...	...	...	...	...	157	0	157
Le Blond	...	270	...	...	...	...	...	...	...	...	...	...	270	0	270
Liberty	...	...	...	...	...	2	...	...	...	...	...	...	2	0	2
Lycoming	...	...	...	704	...	...	...	...	...	...	...	...	704	0	704
Martin	...	...	5	...	...	...	...	...	...	...	...	...	5	0	5
Menasco	...	7	27	3	1	...	...	...	...	...	...	...	38	0	38
Packard	...	...	...	1	...	...	...	...	...	...	...	...	1	0	1
Panther	...	...	1	...	...	...	...	...	...	...	...	...	1	0	1
Pobjoy	...	1	...	...	...	...	...	...	...	...	...	2	1	2	3
Pratt & Whitney	...	...	...	...	34	340	230	16	33	13	2	1	668	1	669
Ranger	...	...	11	...	...	...	...	...	...	...	...	...	11	0	11
Rover	...	20	...	...	...	...	...	...	...	...	...	...	20	0	20
Salmson	16	...	...	...	...	...	...	...	...	...	...	...	16	0	16
Scorpion	1	...	...	...	...	...	...	...	...	...	...	...	1	0	1
Scranton	...	...	1	...	...	...	...	...	...	...	...	...	1	0	1
Siemens	...	...	28	...	...	...	...	...	...	...	...	...	28	0	28
Straughn	2	...	...	...	...	...	...	...	...	...	...	...	2	0	2
Szekely	179	...	...	...	...	...	...	...	...	...	...	...	179	0	179
Tank	...	...	53	...	...	...	...	...	...	...	...	...	53	0	53
Velie	...	146	...	...	...	...	...	...	...	...	...	...	146	0	146
Walter	...	...	7	...	...	...	...	...	...	...	...	...	7	0	7
Warner	...	7	530	...	...	...	...	...	...	...	...	...	537	0	537
Wiley-Post	7	...	...	...	...	...	...	...	...	...	...	...	7	0	7
Wright	...	...	233	745	242	44	13	14	194	16	1	7	1,502	7	1,509
Total Engines	938	1,780	2,186	1,822	280	387	243	37	227	29	3	41	7,932	41	7,973
Total Horsepower	35,290	146,698	291,829	414,667	91,350	163,525	133,000	24,390	162,935	24,080	2,73	7,825	1,490,494	7,825	1,498,319

1936 Aeronautical Exports Up 60 Per Cent*

Year	Aircraft	Aircraft Engines	Parts and Accessories†	Total
1926	$303,149	$573,732	$150,329	$1,027,210
1927	848,568	484,875	570,117	1,903,560
1928	1,759,653	664,826	1,240,244	3,664,723
1929	5,484,600	1,383,197	2,257,548	9,125,345
1930	4,819,669	1,634,985	2,363,456	8,818,110
1931	1,812,809	1,432,229	1,622,649	4,867,687
1932	4,358,967	1,831,145	1,756,421	7,946,533
1933	5,389,739	1,518,309	2,247,834	9,155,882
1934	8,258,484	4,383,101	4,906,596	17,548,181
1935	6,638,515	2,459,317	5,233,011	14,330,843
1936	11,299,451	5,397,469	6,358,841	23,055,761

* Automotive—Aeronautics Trade Division, Bureau of Foreign and Domestic Commerce. † Includes parachutes.

New and Used Car Financing Data*

Year	Wholesale Financing Volume in Dollars	RETAIL FINANCING											
		TOTAL			NEW CARS			USED CARS			UNCLASSIFIED		
		Number of Cars	Total Amount	Per Car	Number of Cars	Total Amount	Per Car	Number of Cars	Total Amount	Per Car	Number of Cars	Total Amount	Per Car
1934	$807,314,729	2,418,699	$893,174,917	$369	1,045,434	$576,112,369	$551	1,326,259	$300,521,929	$227	47,006	$16,540,619	$352
1935	1,402,564,352	3,125,537	1,158,435,029	371	1,312,351	722,542,999	551	1,768,125	419,463,885	237	45,061	16,428,145	365
1936	1,703,583,548	4,263,761	1,715,961,150	402	1,900,324	1,103,104,430	580	2,336,617	603,206,249	258	26,820	9,670,471	361

* Compiled by Bureau of Census from reports of 356 identical organizations.

Estimated Number of Cars in Use*

(As of Dec. 31, 1936)

By Makes

	Number in Use	Per Cent of Total
Ford	5,068,038	27.70
Chevrolet	4,704,803	25.70
Plymouth	1,695,707	9.26
Dodge	889,766	4.86
Buick	810,351	4.43
Pontiac	796,029	4.35
Oldsmobile	622,963	3.40
Terraplane-Essex	536,369	2.93
Chrysler	411,884	2.25
Willys-W.K.-W.O.	407,469	2.23
Studebaker	393,228	2.15
Nash-Lafayette	338,105	1.85
Packard	216,156	1.18
De Soto	214,544	1.17
Hudson	187,061	1.02
Graham	165,456	.90
Hupmobile	121,352	.66
Durant	94,862	.52
Auburn	80,332	.44
Cadillac	73,372	.40
La Salle	71,673	.39
Reo	55,354	.30
Lincoln	39,098	.21
Pierce-Arrow	25,429	.14
Franklin	23,516	.13
Miscellaneous	260,467	1.43
Total	18,303,384	100.00

By Year of Manufacture

Year of Manufacture	Number Surviving	Per Cent of Total
1936	3,387,475	18.51
1935	2,708,237	14.80
1934	1,841,343	10.06
1933	1,420,598	7.76
1932	1,008,687	5.51
1931	1,621,920	8.86
1930	1,969,484	10.76
1929	2,134,113	11.66
1928	1,083,155	5.92
1927	498,472	2.72
1926	322,840	1.76
1925	193,537	1.06
1924	75,984	.42
1923	37,539	.20
Total	18,303,384	100.00

**These data present the relative position of cars by makes and by year of manufacture as to total cars in use. These data do not refer to total registrations of passenger cars as junkers or cars out of service have been eliminated. It is purely a statistical presentation, but it is believed that the tables are a reasonably correct picture of the situation at the end of 1936—at least for any purpose for which the data may be used.*

Distribution of Motor Vehicle Sales*

CHANNELS OF DISTRIBUTION	1935 Amount (000 omitted)	1935 Per cent of Total Net Sales	1935 Per cent of Distributed Sales	1929 Per cent of Distributed Sales
To own wholesale branches	$484,309	19.4	22.7	22.6
Direct to industrial and other large users	72,683	2.9	3.4	3.2
To distributors	677,696	27.2	31.8	33.2
To own retail branches	3,535	0.1	0.2	2.6
To dealers	877,282	35.3	41.1	38.2
Direct to consumer	17,017	0.7	0.8	0.2
Total distributed sales	$2,132,522	85.6	100.0	100.0
Transfer to other plants in own organization	223,119	8.9	No information is available on these type sales for 1929	
Sales not distributed through usual channels	136,771	5.5		
Total for industry	$2,492,412	100.0		

*From the 1935 Business Census of Distribution, Bureau of Census.

Passenger Car Engine—Trends*

Average Bore—Stroke Ratio

1925	1.36
1930	1.38
1931	1.39
1932	1.35
1933	1.36
1934	1.36
1935	1.36
1936	1.27
1937	1.32

*Based on number of models offered as shown on page 291.

Passenger Car Engine—Trends*

Number of Cylinders

	Per Cent 4 Cyl.	Per Cent 6 Cyl.	Per Cent 8 Cyl.	Per Cent 12 Cyl.	Per Cent 16 Cyl.
1922	30.8	59.1	9.5	0.6	....
1923	22.1	66.9	10.4	0.6	....
1924	19.5	70.3	10.2	....	....
1925	14.8	67.8	17.4	....	....
1926	13.00	66.0	21.0	....	....
1927	6.00	65.0	29.0	....	....
1928	6.50	58.0	35.5	....	....
1929	4.00	55.00	41.00	....	....
1930	2.92	43.20	52.70	....	0.98
1931	3.85	30.80	61.50	1.28	2.57
1932	4.20	30.60	54.20	8.30	2.70
1933	5.70	30.00	51.50	10.00	2.80
1934	4.68	31.20	48.50	12.50	3.12
1935	3.50	37.90	50.00	6.90	1.70
1936	3.50	42.10	43.89	8.77	1.74
1937	1.82	38.18	47.27	10.91	1.82

*Based on number of models offered as shown on page 291.

Distribution of Motor-Vehicle Bodies and Parts*

CHANNELS OF DISTRIBUTION	1935 Amount (000 omitted)	1935 Per cent of Total Net Sales	1935 Per cent of Distributed Sales	1929 Per cent of Distributed Sales
To own wholesale branches	$72,543	4.6	10.2	1.8
Direct to industrial and other large users	547,367	34.9	76.8	83.8
To wholesalers and jobbers	66,704	4.3	9.4	10.8
To own retail stores	8,938	0.6	1.3	....
To retailers of all types	13,908	0.9	2.0	3.6
Direct to consumer	2,290	0.1	0.3	....
Total distributed sales	$711,750	45.4	100.0	100.0
Transfer to other plants in own organization	836,422	53.3	No information is available on these type sales for 1929	
Sales not distributed through usual channels	19,732	1.3		
Total for industry	$1,567 904	100.0		

*From the 1935 Business Census of Distribution, Bureau of Census.

GENERAL AND ENGINE SPECIFICATIONS

Line Number	CAR MAKE AND MODEL	Wheelbase (Ins.)	Tread (Ins.) Front	Tread (Ins.) Rear	Overall Length (Ins.) with Bumpers	Shipping Weight (Lbs.) Cheapest 5-pass., 4-door Sedan	Tire Size	Gear Ratio—5-pass., 4-door Sedan	ENGINE: No. of Cylinders, Bore and Stroke (Ins.)	Valve Arrangement	Cylinder Arrangement	Cylinder Head Material	Piston Displacement (Cu. Ins.)	Taxable Hp.	Maximum Brake Hp. at Specified R.P.M.	Maximum Torque (Lb. Ft.) at Specified R.P.M.	Comp. Ratio to 1: Standard	Comp. Ratio to 1: Optional	Comp. Pressure (Lbs.): Pressure	Comp. Pressure (Lbs.): At What R.P.M.	Weight per Cu. In., 5-pass., 4-door Sedan	Weight per Hp., 5-pass., 4-door Sedan	Hp. per Cu. In.	Engine Revolutions per Mile †	Displacement Factor ††	Line Number
1	Auburn 654	120	59	62	.....	3219	6.00/16	4.44	6-3 1/16 x4 3/4	L	II	Al	209.9	22.5	85-3500	158-1600	6.20	No	.....	.....	15.3	38.6	.40	3325	41.3	1
2	Auburn 852	127	59	62	.....	3580	6.50/16	4.08	8-3 1/16 x4 3/4	L	II	Al	279.9	30.0	115-3600	211-1800	6.50	No	.....	.....	12.8	33.1	.41	2958	40.4	2
3	Auburn SC-852	127	59	62	.....	3915	7.00/16	4.08	8-3 1/16 x4 3/4	L	II	Al	279.9	30.0	150-4000	233-2700	6.50	7.00	.....	.....	14.0	26.1	.53	2827	38.9	3
4	Buick Special 37-40	122	58 1/2	59	199 1/2	3510	6.50/16	4.40	8-3 3/8 x4 1/2	I	II	CI	248.0	30.63	100-3200	196-2000	5.70	No	103	SS	14.2	35.19	.403	3190	39.2	4
5	Buick Century 37-60	126	58 5/16	59 1/4	203 3/16	3750	7.00/15	3.90	8-3 7/16 x4 5/8	I	II	CI	320.2	37.81	130-3400	258-2000	5.75	No	106	SS	11.7	28.8	.407	2859	42.7	5
6	Buick Roadmaster 37-80	131	59 1/2	60 1/2	207 7/16	4159	7.00/16	4.22	8-3 7/16 x4 5/8	I	II	CI	320.2	37.81	130-3400	258-2000	5.75	No	106	SS	12.9	31.8	.407	2924	39.4	6
7	Buick Limited 37-90	138	59 7/16	62 1/2	214 5/16	4549	7.50/16	4.62	8-3 7/16 x4 7/16	I	II	CI	320.2	37.81	130-3400	258-2000	5.75	No	106	SS	14.2	34.3	.407	3086	40.2	7
8	Cadillac V8-60	124	58	59	201 1/4	3845	7.00/16	3.69	8-3 1/2 x4 1/2	L	V	CI	346.0	39.20	135-3400	250-1800	6.25	5.75	155	1000	11.2	29.2	.390	2557	40.9	8
9	Cadillac V8-65	131	60 3/16	60 1/2	208 1/16	4385	7.50/16	4.30	8-3 1/2 x4 1/2	L	V	CI	346.0	39.20	135-3400	250-1800	6.25	5.75	170	1000	12.7	32.5	.390	2903	41.4	9
10	Cadillac V8-70	131	60 1/16	60 1/2	208 1/16	4420	7.50/16	4.30	8-3 1/2 x4 1/2	L	V	CI	346.0	39.20	135-3400	250-1800	6.25	5.75	170	1000	12.8	32.7	.390	2903	41.1	10
11	Cadillac V8-75	138	60 1/16	62 1/2	215 1/16	4745	7.50/16	4.30	8-3 1/2 x4 1/2	L	V	CI	346.0	39.20	135-3400	250-1800	6.25	5.75	170	1000	13.7	35.2	.390	2872	38.0	11
12	Cadillac V12-85	138	60 1/16	62 1/2	215 7/16	5050	7.50/16	4.60	12-3 1/2 x4	I	V	CI	368.0	46.90	150-3600	265-1200	6.00	5.65	145	1000	13.7	33.7	.407	3073	40.8	12
13	Cadillac V16-90	154	59 1/16	62	238	6085	7.50/17	4.64	16-3x4	I	V	CI	452.0	57.60	185-3800	330-1200	6.00	5.65	154	1000	13.5	32.9	.409	3021	40.5	13
14	Chevrolet Master	112 1/4	56 3/16	57 3/16	187 1/4	2845	6.00/16	3.73	6-3 1/16 x3 3/4	I	II	CI	216.5	29.40	85-3200	170-(d)	6.25	No	112	65	13.2	33.4	.394	2794	35.4	14
15	Chevrolet Master De Luxe	112 1/4	57 1/16	57 3/16	187 1/4	2935	6.00/16	4.22	6-3 1/16 x3 3/4	I	II	CI	216.5	29.40	85-3200	170-(d)	6.25	No	112	65	13.5	34.5	.394	3161	39.0	15
16	Chrysler Royal C-16	116, 133	56 1/16	60	198 1/16	3039	6.25/16	4.10	6-3 3/8 x4 1/4	L	II	CI	228.1	27.34	93-3600	168-1200	6.50	7.00	155	1000	13.3	32.8	.407	3071	38.8	16
17	Chrysler Imperial C-14	121	57 1/8	59 7/8	204 1/4	3366	6.50/16	4.10	8-3 1/4 x4 1/8	L	II	Al	273.8	33.80	110-3600	212-1200	6.70	7.4	155	1000	12.3	30.6	.402	2973	41.7	17
18	Chrysler Custom Imperial C-15	140	57 1/8	63	223 1/4	.....	7.50/16	4.55	8-3 1/4 x4 7/8	L	II	Al	323.5	33.80	130-3400	250-1600	6.50	7.45	150	1000	.....	.....	.402	3039	.....	18
19	Chrysler Airflow C-17	128	57	57 1/4	213 1/8	4203	7.50/16	4.30	8-3 1/4 x4 7/8	L	II	Al	323.5	33.80	130-3400	250-1600	6.50	7.45	150	1000	13.0	32.6	.402	2903	40.3	19
20	Cord Front Drive 812	125	56	61	195 1/2	3715	6.50/16	3.88	8-3 1/2 x3 3/4	L	V	Al	288.6	39.20	115-3600	220-1700	6.32	.....	110	130	12.9	32.3	.399	2809	40.3	20
21	De Soto S-3	116	56 1/16	60	198 1/16	3039	6.00/16	4.10	6-3 3/8 x4 1/4	L	II	CI	228.1	27.34	93-3600	168-1200	6.50	7.00	155	1000	13.3	32.7	.407	3071	39.0	21
22	Dodge D-5	115	56	60 1/16	196 1/16	2912	6.00/16	4.10	6-3 1/4 x4 3/8	L	II	CI	217.8	25.35	87-3600	155-1200	6.50	No	140	1000	13.4	33.4	.400	3071	38.7	22
23	Duesenberg J	143, 154	57 1/4	58	.....	.....	7.00/18	3.78°	8-3 3/8 x4 3/4	I	II	CI	420.0	45.00	265-4200	.....	5.20	No	.....	.....	.....	.....	.631	2457	.....	23
24	Ford V8-60	112	55.47	58.25	179 1/2	2543	5.50/16	4.44	8-2.60x3.20	L	V	Al	136.0	21.63	60-4200	94-2500	6.6	No	153	3200	18.7	42.3	.441	3414	30.4	24
25	Ford V8-85	112	55.47	58.25	179 1/2	2761	6.00/16	3.78	8-3.062x3.75	L	V	Al	221.0	30.00	85-3800	146-2000	6.12	No	100	SS	12.5	32.5	.385	2801	37.9	25
26	Graham Crusader 85	111	56 3/4	56 3/4	185 1/2	2695	(b)	4.55	6-3x4	L	II	Al	169.6	21.60	70-3500	128-1500	6.80	No	115	50	15.9	38.5	.413	3408	35.7	26
27	Graham Cavalier 95	116	60 5/8	61 1/4	198	2960	6.00/16	4.45	6-3 1/4 x4	L	II	Al	199.1	25.35	85-3800	137-1600	6.70	No	120	50	14.9	34.8	.427	3333	37.9	27
28	Graham Supercharger 116	116	60 5/8	61 1/4	198	3125	6.25/16	4.27	6-3 1/4 x4	L	II	Al	199.1	25.35	106-4000	165-2500	6.70	No	120	50	15.7	23.5	.532	3194	.....	28
29	Graham Supercharger 120	120‡	60 5/8	61 1/4	202	3200	6.50/16	4.27	6-3 1/4 x4 3/8	L	II	Al	217.8	25.35	116-4000	180-3000	6.70	No	120	50	14.7	27.6	.533	3164	.....	29
30	Hudson 73	122	56	57 1/2	197 3/8	2990	6.00/16	4.11	6-3x5	L	II	CI	212.0	21.60	101-4000	170-1400	6.25	7.00	117	125	14.1	29.6	.477	3078	36.8X	30
31	Hudson 74-5-6-7	122, 129	56	57 1/2	(c)	3135X	6.25/16	4.10	8-3x4 1/2	L	II	CI	254.0	28.8	122-4200	200-1800	6.25	7.00	118	125	12.3X	24.7	.480	3038	41.2X	31
32	La Salle 37-50-V8	124	58	59	201 1/4	3810	7.00/16	3.92	8-3 3/8 x4 1/2	L	V	CI	322.0	36.45	125-3400	.....	6.25	5.75	155	1000	11.8	30.5	.388	2717	41.0	32
33	Lincoln-Zephyr	122	55 1/2	58 1/4	210	3400	7.00/16	4.44	12-2.75x3.75	L	V	Al	267.3	36.30	110-3900	186-2000	6.70	.....	146	1000	12.7	30.9	.412	3077	42.6	33
34	Lincoln V-12	136, 145	60	60	(h)	5700	7.50/17	4.58	12-3 1/16 x4 1/2	L	V	Al	414.0	46.80	150-3400	312-1200	6.38	.....	138	1000	13.7	38.0	.363	2982	38.9	34
35	Nash Lafayette 400-3710	117	58	60 1/4	196 7/16	3240	6.00/16	4.11	6-3 3/8 x4 5/8	L	II	CI	234.8	27.34	90-3400	171-1200	5.61	5.88	100	125	13.8	36.7	.384	3078	37.4	35
36	Nash Ambassador 6-3720	121	58	60 1/4	200 1/16	3400	6.25/16	4.11	6-3 3/8 x4 5/8	I	II	CI	234.8	27.34	93-3400	174-1600	5.67	.....	100	125	14.5	36.6	.396	3046	36.2	36
37	Nash Ambassador 8-3780	125	58	60	200 7/16	3720	7.00/16	4.11	8-3 1/16 x4 1/4	I	II	CI	260.8	31.25	105-3400	196-1800	5.64	.....	90	125	14.2	34.5	.402	2848	35.5	37
38	Oldsmobile F-37	117	58	59	192 11/16	3310	6.50/16	4.37	6-3 7/16 x4 1/16	L	II	CI	229.7	28.40	95-3400	180-1600	6.10	No	146	1000	14.4	34.8	.413	3168	38.1	38
39	Oldsmobile L-37	124	58	59	199 9/16	3510	7.00/16	4.37	8-3 1/16 x3 7/8	L	II	CI	257.1	33.80	110-3600	200-1800	6.20	No	152	1000	13.7	31.9	.428	3028	39.1	39
40	Packard Six	115	59	60	194 1/8	3265	6.50/16	4.26	6-3 7/16 x4 1/4	L	II	CI	237.0	28.36	100-3600	200-2000	6.30	6.75	110	125	13.8	32.6	.4219	3170	39.7	40
41	Packard 120-C	120	59	60	195 7/16	3465	7.00/16	4.09	8-3 1/4 x4 1/4	L	II	Al	282.0	33.8	120-3800	225-2000	6.50	7.0	110	125	12.3	28.9	.425	2851	40.7	41
42	Packard Super Eight	127, 34, 39	59 1/4	61	222 23/32	4530	7.50/16	4.69	8-3 1/16 x5	L	II	Al	320.0	32.5	130-3200	300-1400	6.50	No	110	125	14.2	33.6	.4218	3133	40.1	42
43	Packard Twelve	132, 39, 44	60 1/4	61	227 23/32	5335	8.25/16	4.41	12-3 1/16 x4 1/4	ML	V	Al	473.0	56.7	175-3200	365-1200	6.40	(a)	110	125	11.3	30.5	.370	2837	46.8	43
44	Pierce-Arrow 1701	139, 144	59 1/2	61 1/2	(e)	5675	7.00/17	4.58	8-3 1/2 x5	L	II	Al	385.0	39.20	150-3400	305-1600	6.40	No	143	2500	14.7	37.8	.389	3087	37.6	44
45	Pierce-Arrow 1702	138, 144	59 1/2	61 1/2	(f)	5920	7.50/17	4.58	12-3 1/2 x4	L	V	Al	462.0	58.80	185-3400	350-1500	6.40	No	140	2500	12.8	32.0	.401	2982	42.0	45
46	Pierce-Arrow 1703	147	59 1/2	61 1/2	223 3/4	6125(g)	7.50/17	4.58	12-3 1/2 x4	L	V	Al	462.0	58.80	185-3400	350-1500	6.40	No	140	2500	13.2	33.1	.401	2982	40.7	46
47	Plymouth P-3	112	55 13/16	59 11/16	193 3/4	2770	5.50/16	3.90	6-3 1/16 x4 3/8	L	II	CI	201.3	23.44	82-3600	145-1200	6.70	.....	145	1000	13.8	33.8	.408	2999	36.7	47
48	Plymouth De Luxe P-4	112	55 13/16	59 11/16	193 3/8	2840	6.00/16	4.10	6-3 1/16 x4 3/8	L	II	CI	201.3	23.44	82-3600	145-1200	6.70	.....	145	1000	14.1	34.6	.408	3071	36.5	48
49	Pontiac De Luxe Six 37-26 CA	117	58 1/16	59	193 1/16	3235	6.00/16	4.37	6-3 7/16 x4	L	II	CI	222.7	28.3	85-3250	70-1600	6.20	No	141.5	1000	14.5	38.1	.382	3273	38.5	49
50	Pontiac De Luxe Eight 37-28 CA	122	58 3/8	59	198 1/16	3380	6.50/16	4.37	8-3 1/4 x3 3/4	L	II	CI	248.9	33.8	99-2800	76-1600	6.20	No	141.5	1000	13.6	34.2	.397	3168	40.5	50
51	Studebaker Dict. & D. Pt. 6	116	57 3/8	60 3/8	192 1/16	3130	6.00/16	4.55	6-3 1/4 x4 3/8	L	II	CI	217.8	25.4	90-3400	198-1800	6.00	No	105	150	14.4	34.8	.413	3408	40.2	51
52	Studebaker President	125	60 3/8	61 3/8	201 1/16	3620	6.50/16	4.55	8-3 1/4 x4 1/4	L	II	Al	250.4	30.0	115-3600	212-1800	6.50	No	107	150	14.5	31.5	.455	3299	39.9	52
53	Terraplane 71	117	56	57 1/2	193 1/16	2865	6.00/16	4.11	6-3x5	L	II	CI	212.0	21.6	98-3900	170	6.25	7.0	80	125	13.5	29.9	.452	3078	38.3	53
54	Terraplane 72	117	56	57 1/2	193 1/16	2905	6.00/16	4.11	6-3x5	L	II	CI	212.0	21.6	101-4000	170	6.25	7.0	80	125	13.7	28.8	.477	3078	37.8	54
55	Willys 37	100	55	56	175 1/4	2250	5.50/16	4.30	4-3 1/16 x4 3/8	L	II	CI	134.2	15.63	48-3200	100-1600	5.70	No	87	216	16.7	46.8	.358	3307	32.2	55

†—Computed on basis all tires are of same make, specified plies and standard rear axle ratio, except when furnished by manufacturer.
‡—Coupes—116

††—Computed on basis of displacement, gear ratio, effective tire diameter and weight with normal load.
°—Others Also *—Coupe

ABBREVIATIONS:

(a)—6.0 to 1 and 7.0 to 1
(b)—5.25/17—2 Door Sedan; 6.00/16—4 Door Sedan
(c)—Mod. 74-5, 197 3/8; Mod. 76-7, 202 1/8
(d)—900 to 2000
(e)—138WB-216 in.; 144WB-221 in.
(f)—138WB-216 in.; 144WB-220 3/4 in.
(g)—7 Pass. Sedan
(h)—136WB-213 in.; 145WB-222 in.
Al—Aluminum
CI—Cast Iron
CNS—Chrome Nickel Steel
CS—Cast Steel
I—In-Head
II—In-Line
L—Ell-Head
V—Vee-Type
SS—Starter Speed
ML—Modified Ell-Head
X—On 122 W.B. only

PISTONS, RINGS, CONNECTING RODS

Line Number	CAR MAKE AND MODEL	Number of Cylinders, Bore and Stroke	PISTON: Make	Material	Features	Weight (Ozs.) without rings, pin or bushing	Length (Inches)	Clearance (Inches) Average: Top	Clearance (Inches) Average: Bottom	Number of Grooves	Ring Groove Depth (Ins.): Oil	Ring Groove Depth (Ins.): Compression	PISTON RINGS: OIL: Number Used	OIL: Width (Ins.)	OIL: Average Gap (Ins.)	OIL: Maximum Wall Thickness (Ins.)	Compression: Number Used	Compression: Width (Ins.)	Compression: Average Gap (Ins.)	Compression: Maximum Wall Thickness (Ins.)	WRIST PIN: Length (Ins.)	WRIST PIN: Diameter (Ins.)	WRIST PIN: Locked In	WRIST PIN: Clearance Average (Ins.)	CONNECTING RODS: Length (Ins.)	CONNECTING RODS: Material	CONNECTING RODS: Weight (Ozs.)	Line Number
1	Auburn 654	6-3 1/16 x 4 3/4	Bohn	Al		16.00	3 3/4	.0097	.0015	4	.159	.179	2	(c)	.013		2	1/8	.013		2 1/2	7/8	R	SF	9 1/2	1035	37.40	1
2	Auburn 852	8-3 1/16 x 4 3/4	Bohn	Al		16.00	3 3/4	.0097	.0015	4	.159	.179	2	(c)	.013		2	1/8	.013		2 1/2	7/8	R	SF	9 1/2	1035	37.40	2
3	Auburn SC-852	8-3 1/16 x 4 3/4	RaDa	Al		14.40	3 3/4	.0012	.0132			.179	1	1/16	.015		2	1/8	.013		2 1/2	7/8	R	SF	9 1/2	1035	37.40	3
4	Auburn 37-40	8-3 1/16 x 4 1/8	Own	Lx-Al	Trs,C,An	13.75	3.81	.0220	.0021	4	.167	.150	2	1/16	.0125	.135	2	3/32	.0125	.135	2 1/16	7/8	R	.0003	7 5/8	1045	29.92	4
5	Buick 37-60	8-3 1/16 x 4 1/16	Own	Lx-Al	Trs,C,An	18.25	4.16	.0250	.0023	4	.178	.165	2	1/16	.0125	.145	2	3/32	.0125	.145	3 1/16	7/8	R	.0003	8 1/4	1045	38.43	5
6	Buick 37-80	8-3 1/16 x 4 1/16	Own	Lx-Al	Trs,C,An	18.25	4.16	.0250	.0023	4	.178	.165	2	1/16	.0125	.145	2	3/32	.0125	.145	3 1/16	7/8	R	.0003	8 1/4	1045	38.43	6
7	Buick 37-90	8-3 1/16 x 4 1/16	Own	Lx-Al	Trs,C,An	18.25	4.16	.0250	.0023	4	.178	.165	2	1/16	.0125	.145	2	3/32	.0125	.145	3 1/16	7/8	R	.0003	8 1/4	1045	38.43	7
8	Cadillac V8-60	8-3 1/2 x 4 1/2	Bohn	Lx-Al	Ts,An	18.30	4 1/8	.025	.0021	4	.153	.151	2	3/32	.011	.150	2	1/8	.0095	.150	3 1/16	7/8	F	PF	8 3/4	1340	60.56	8
9	Cadillac V8-65	8-3 1/2 x 4 1/2	Bohn	Lx-Al	Ts,An	18.30	4 1/8	.025	.0021	4	.153	.151	2	3/32	.011	.150	2	1/8	.0095	.150	3 1/16	7/8	F	PF	8 3/4	1340	60.56	9
10	Cadillac V8-70	8-3 1/2 x 4 1/2	Bohn	Lx-Al	Ts,An	18.30	4 1/8	.025	.0021	4	.153	.151	2	3/32	.011	.150	2	1/8	.0095	.150	3 1/16	7/8	F	PF	8 3/4	1340	60.56	10
11	Cadillac V8-75	8-3 1/2 x 4 1/2	Bohn	Lx-Al	Ts,An	18.30	4 1/8	.025	.0021	4	.153	.151	2	3/32	.011	.150	2	1/8	.0095	.150	3 1/16	7/8	F	PF	8 3/4	1340	60.56	11
12	Cadillac V12-85	12-3 1/8 x 4	Lyn	Lx-Al	Ts,An	11.71	3 5/8	.019	.002	4	.137	.142	1	.154	.011	.135	3	.093	.0095	.135	2.812	.874	P	PF	9 1/4	1340	31.85	12
13	Cadillac V16-90	16-3 x 4	Lyn	Lx-Al	Ts,An	10.96	3 5/8	.018	.018	4	.132	.134	1	.154	.011	.130	3	.093	.0095	.130	2.812	.874	P	PF	9 1/4	1340	31.85	13
14	Chevrolet Master	6-3 1/2 x 3 3/4	Own	Cl	T,D,Sls	22.70	3 15/16	.0095	.0022	3	.178	.156	1	1/8	.010	.155	2	1/16	.010	.155	3 3/32	7/8	R	SF	6 1/16	FS	28.00	14
15	Chevrolet Master De Luxe	6-3 1/2 x 3 3/4	Own	Cl	T,D,Sls	22.70	3 15/16	.0095	.0022	3	.178	.156	1	1/8	.010	.155	2	1/16	.010	.155	3 3/32	7/8	R	SF	6 1/16	FS	28.00	15
16	Chrysler Royal C-16	6-3 5/8 x 4 1/4		Al	Us,C,An	17.46	3 7/8	.022	.002	4	.177	.157	2	3/32	.011	.145	2	1/16	.011	.145	2 7/8	13/16	F	PP	8	MS		16
17	Chrysler Imperial C-14	8-3 1/4 x 4 1/2		Al	Us,C,An	16.33	3 7/8	.022	.002	4	.177	.157	2	3/32	.011	.145	2	1/16	.011	.145	2 3/4	13/16	F	PP	9 3/16	MS	36.8	17
18	Chrysler Custom Imperial C-15	8-3 1/4 x 4 7/8		Al	Us,C,An	16.33	3 7/8	.022	.002	4	.177	.157	2	3/32	.011	.145	2	1/16	.011	.145	2 3/4	13/16	F	PP	9 3/16	MS	36.1	18
19	Chrysler Airflow C-17	8-3 1/4 x 4 7/8		Al	Ts,C,An	16.33	3 7/8	.022	.002	4	.177	.157	2	3/32	.011	.145	2	1/16	.011	.145	2 3/4	13/16	F	PP	9	MS	36.1	19
20	Cord Front Drive 812	8-3 1/2 x 3 3/4	RaDa	Al	Ts,St	20.0	3 11/16	.026	.002	4	.163	.183	2	.155	.011	.150	2	.093	.011	.150	2.591	.875	F	.0002	7 5/8	1035	31.7	20
21	De Soto S-3	6-3 5/8 x 4 1/4		Al	Us,C,An	17.46	3 7/8	.022	.002	4	.177	.157	2	3/32	.011	.145	2	1/16	.011	.145	2 7/8	13/16	F	PP	7 11/16	MS	30.6	21
22	Dodge D-5	6-3 1/4 x 4 3/8		Al	Ss,St	17.92	3 11/16	.022	.0017	4	.177	.157	2	3/32	.011	.145	2	1/16	.011	.145	2 3/4	13/16	F	PP	9 3/16	Dur	18.0	22
23	Duesenberg J	8-3 5/8 x 4 3/4	RaDa	Ala	Ss	20.0	4 3/8	.022	.0035		.166	.161	1	3/32		.145	3	1/16		.145	3 11/16	1 1/16	F					23
24	Ford V8-60	8-2.60x3.20	Own	CSA		8.11		(d)	(d)	3			1	.155	.0085	.115	2	.092	.0085	.115	2.36	.687	F	.0005	6 1/4	FS	9.52	24
25	Ford V8-85	8-3.062x3.75	Own	CSA		10.62		(e)	(e)	3			1	.154	.010	.135	2	.092	.012	.135	2.85	.750	F	.0003	7	FS	16.54	25
26	Graham Crusader 85	6-3x4	Bohn	Al	St,T	14.0	3 1/16		.0020	4			2	(a)			2	3/32			2 5/8	13/16	R	.0005	7	FS		26
27	Graham Cavalier 95	6-3 1/4 x 4	Bohn	Al	A,St,C,T	17.0	3 5/8		.0025	4			2	(a)	.012		2	3/32	.012		2 13/16	11/16	R	.0005	7	FS		27
28	Graham Supercharger 116	6-3 1/4 x 4	Bohn	Al	A,St,C,T	17.0	3 5/8		.0025	4			2	(a)	.012		2	3/32	.012		2 13/16	11/16	R	.0005	7	FS		28
29	Graham Supercharger 120	6-3 1/4 x 4 3/8	Bohn	Al	A,St,C,T	17.0	3 5/8		.0025	4			2	(a)	.012		2	3/32	.012		2 13/16	11/16	R	.0005	7	FS		29
30	Hudson 73	6-3x5	Own	Lx-Al	Ts,C	10.50	3.18	.016	.0007	4	.187	.093	2	.187	.010	.123	2	.093	.010	.123	2.437	.750	F	.0003	8.187	FS	24.0	30
31	Hudson 74-5-6-7	8-3x4 1/2	Own	Lx-Al	Ts,C	10.88	3.18	.016	.0007	4	.187	.093	2	.187	.010	.128	2	.093	.010	.123	2.437	.750	F	.0003	8.187	FS	29.4	31
32	La Salle 37-50	8-3 5/8 x 4 1/2	Lyn	Lx-Al	Ts,An	16.88	4 1/8	.019	.0013	4	.154	.152	2	3/32	.011	.145	2	1/16	.0095	.145	2 1/4	7/8	F	PF	8 3/4	1340	60.56	32
33	Lincoln-Zephyr	12-2 3/4 x 3 3/4			CSA	11.50	2.97				.145	.145	1	.155	.010	.125	2	3/32	.010	.125	2.48	3/4	F	.0005	7.40	SFS	20.6	33
34	Lincoln V12	12-3 1/4 x 4 1/2			Ala	12.50	3.87			4	.166	(1)	2	.154	.011	.140	2	.124	.011	.125	3.00	.875	P	.0005	10.87	FS	38.0	34
35	Nash Lafayette 400-3710	6-3 5/8 x 4 3/8	Bohn	Al	Ss,St			.022	.0020	4			2	.156			2		.125			7/8	F	.0001	8 5/8	FS		35
36	Nash Ambassador 6-3720	6-3 5/8 x 4 3/8	Bohn	Al	Ss,St			.022	.0020	4			2	.156			2		.125			7/8	F	.0001	8 3/4	FS		36
37	Nash Ambassador 8-3780	8-3 1/8 x 4 1/4	Bohn	Al	Ss,St			.020	.0020	4			2	(c)			2		.125			7/8	F	.0001	8 3/4	FS		37
38	Oldsmobile F-37	6-3 1/16 x 4 1/8	Own	Al	Ss,O	17.50	4 1/16	.026	.0015	4	11/32	3/32	2	1/16	.011	.150	2	1/8	.0105	.153	3 3/32	13/16	P	.0004	7 11/16	1335-A	28.25	38
39	Oldsmobile L-37	8-3 1/4 x 3 7/8	Own	Al	Ss,O	16.25	3 13/16	.026	.0015	4	5/32	3/64	2	1/16	.011	.150	2	1/8	.0115	.150	2 3/32	13/16	P	.0004	7 11/16	1335-A	28.00	39
40	Packard Six	6-3 7/16 x 4 1/4	Bohn	Al	A,St,C,T	19.0	3 7/8		.0015	3			1	1/8	.011		2	1/8	.0095		2 7/16	7/8	F	PF	7 11/16	FS	32 1/2	40
41	Packard 120-C	8-3 1/4 x 4 1/4	Bohn	Al	A,St	17.8	3 7/8		.0015	3			1	1/16	.011		2	1/8	.0095		2 7/16	7/8	F	PP	7 11/16	FS	32 1/2	41
42	Packard Super Eight	8-3 5/16 x 5	Bohn	Al	A,St	18.7	4 1/4		.0015	4			2	3/32	.011		2	1/8	.0095		2 7/16	7/8	F	PP	10 7/8	FS	41 1/2	42
43	Packard Twelve	12-3 7/16 x 4 1/4	Bohn	Al	A,St	21.7	4.318		.0015	4			1	3/32	.011		2	1/8	.0095		2 7/16	7/8	F	PP	9	FS	40 5/8	43
44	Pierce-Arrow 1701	8-3 1/2 x 5	Bohn	Al	St	22.7	4 1/4	.024	.002	4	.189	.169	2	3/32	.015	.145	3	.123	.015	.145	3.03	.875	F		8.99	4140	34.82	44
45	Pierce-Arrow 1702	12-3 1/2 x 4	Bohn	Al	St,C	22.7	4 1/4	.022	.0010	4	.176	.156	2	3/32	.015	.145	3	.123	.015	.145	3.03	.875	F	.0005	9.63	4140	35.62	45
46	Pierce-Arrow 1703	12-3 1/2 x 4	Bohn	Al	St,C	22.7	4 1/4	.022	.0010	4	.176	.156	2	3/32	.015	.145	3	.123	.015	.145	3.03	.875	F	.0005	9.63	4140	35.62	46
47	Plymouth P-3	6-3 5/16 x 4 3/8		Al	Us,C,An	14.43	3 11/16	.022	.0007	4	.171	.151	2	3/32	.011	.140	2	1/8	.011	.140	2 5/8	13/16	F	PP	7 11/16	FS	31.00	47
48	Plymouth P-4	6-3 5/16 x 4 3/8		Al	Us,C-An	14.43	3 11/16	.022	.0007	4	.171	.151	2	3/32	.011	.140	2	1/8	.011	.140	2 5/8	13/16	F	PP	7 11/16	FS	31.00	48
49	Pontiac De Luxe Six 37-26 CA	6-3 7/16 x 4	Own	CNI	T	26.68	3 11/16	.023	.002	3	3/32	3/32	1	.186	.012	.150	2	.124	.012	.150	2 7/8	13/16	P	.0004	7 11/16	FS	29 1/8	49
50	Pontiac De Luxe Eight 37-28 CA	8-3 1/4 x 4	Own	CNI	T	24.25	3.58	.023	.002	3	.1785	.1585	1		.012	.150	2	1/16	.0155	.145	2 7/8	13/16	R	.0002	8 1/8	SFS	33.2	50
51	Studebaker Dict. & Dict. Pl. 6	6-3 1/4 x 4 3/8	Lyn	Al	Ts,C	15.2	3.75	.017	.0015	3	.187	.1495	1	1/16	.0155	.135	2	1/16	.0155	.135	2 5/8	7/8	R	.0002	8	SFS	32.0	51
53	Studebaker President	8-3 1/16 x 4 1/4	Lyn	Al	Ts,C	18.8	3.75	.017	.0015	3	.1755	.146	1	1/16	.017	.125	2	1/16	.010	.123	2.437	.750	F	.0003	8.187	FS	24.0	53
53	Terraplane 71	6-3x5	Own	Lx-Al	Ts,C	10.5	3.18	.016	.0007	4	.187	.093	2	.187	.010	.128	2	.093	.010	.123	2.437	.750	F	.0003	8.187	FS	24.0	54
54	Terraplane 72	6-3x5	Own	Lx-Al	Ts,C	10.5	3.18	.016	.0007	4	.187	.093	2	.187	.010	.128	2	.093	.010	.123	2.437	.750	F	.0003	8.187	FS	24.0	54
55	Willys 37	4-3 1/8 x 4 3/8	Own	Cl	LW	22.0	3 3/4	.015	.0027	4			1	3/16	.011	.140	3	3/32	.0095	.140	2.682	.937	F	(b)	9 3/16	1035	34.0	55

(a)—Upper 3/32 Lower 5/32
Al—Aluminum
Ala—Aluminum—Anode Processed
Alcoa—Aluminum Co. of Amer.
(1)—Top ring .147
—Second ring .145

An—Anodized
A.St—Autothermic, Strut Type
(b)—Piston .0003; Rod Bushing .0005
Bohn—Nelson Bohnalite
(c)—One 1/16, One 3/32 **C**—Cam Ground
Cl—Cast Iron **CNI**—Chrome Nickel Iron

ABBREVIATIONS:
CSA—Cast Steel Alloy
(d)—8-12 lbs. pull on .0025 feeler
D—Dome Head **Dur**—Dural
(e)—8-12 lbs. pull on .003 feeler
F—Floating **FS**—Forged Steel
LW—Light Weight Type
Lx—LoEx Aluminum
Lyn—Lynite
MS—Manganese Steel
O—Oxidized Finish
P—Piston
PF—Press Fit
PP—Palm Push Fit
R—Rod
RaDa—Ray Day
Sa—Split Skirt
Sls—Slipper Type Skirt
SF—Selective Fit
SFS—Special Forged Steel
T—Tin Plated
Ts—Tee Slot
Trs—Tri Slot **Us**—U-Slot

CONNECTING ROD AND CRANKSHAFT BEARINGS

Line Number	CAR MAKE AND MODEL	CONNECTING ROD BEARINGS								CRANKSHAFT BEARINGS								DIAMETER AND LENGTH (Inches)								Total Area (Sq. Ins.)	Line Number
		Diameter and Length (Ins.)	Material	Make	Average Clearance (Ins.)	Average End Play (Ins.)	Type of Shim.	Type of Bearing	Rods and Pistons Removed from	Vibration Damper?	Crankshaft Counterweights	End Thrust taken by	Amount of End Play (Ins.)	Main Bearing Material	Average Bearing Clearance (Ins.)	Type of Bearing	Type of Shim.	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9		
1	Auburn 654	2⅛x1¼	Bab		.0025*	.009M	No			Yes	Yes	3	.010	BBb	.0018*	Sl	No	2¾x1⅛	2¾x1⅝	2¾x1⅝	2¾x1⅞						52.69	1
2	Auburn 852	2⅛x1¼	Bab		.0025*	.009M	No			Yes	No	3	.010	BBb	.0016*	Sl	No	2¾x1⅛	2¾x1⅝	2¾x1⅝	2¾x1⅝	2¾x1⅞					64.81	2
3	Auburn SC-852	2⅛x1¼	Bab		.0025*	.009M	No			Yes	Yes	3	.010	BBb	.0016*	Sl	No	2¾x1⅛	2¾x1⅝	2¾x1⅝	2¾x1⅝	2¾x1⅞					64.81	3
4	Buick 37-40	2x1⅞	Bab	Own	.0013	.0075	So	Sp	A	Yes	8	C	.0055	BSb	.0015	Se	So	2⅛x1⅛	2⅜x1⅛	2⅛x1⅝	2⅛x1⅛	2⅛x2⅛					16.66	4
5	Buick 37-60	2¼x1⅛	Bab	Own	.0013	.0075	So	Sp	A	Yes	8	C	.0055	BSb	.0015	Se	So	2⅛x1⅛	2⅝x1⅛	2⅛x1⅛	2⅛x1⅛	2⅛x2⅛					19.38	5
6	Buick 37-80	2¼x1⅛	Bab	Own	.0013	.0075	So	Sp	A	Yes	8	C	.0055	BSb	.0015	Se	So	2⅛x1⅛	2⅝x1⅛	2⅛x1⅛	2⅛x1⅛	2⅛x2⅛					19.38	6
7	Buick 37-90	2¼x1⅛	Bab	Own	.0013	.0075	So	Sp	A	Yes	8	C	.0055	BSb	.0015	Se	So	2⅛x1⅛	2⅝x1⅛	2⅛x1⅛	2⅛x1⅛	2⅛x2⅛					19.38	7
8	Cadillac V8-60	2.46x2⅛	BSb	Bohn	.0015	.0045	No	Se	A	Yes	6	C	.0030	BBb	.0015	Se	No	2½x1⅛	2½x1⅛	2½x1⅛							32.88	8
9	Cadillac V8-65	2.46x2⅛	BSb	Bohn	.0015	.0045	No	Se	A	Yes	6	C	.0030	BBb	.0015	Se	No	2½x1⅛	2½x1⅛	2½x1⅛							32.88	9
10	Cadillac V8-70	2.46x2⅛	BSb	Bohn	.0015	.0045	No	Se	A	Yes	6	C	.0030	BBb	.0015	Se	No	2½x1⅛	2½x1⅛	2½x1⅛							32.88	10
11	Cadillac V8-75	2.46x2⅛	BSb	Bohn	.0015	.0045	No	Se	A	Yes	6	C	.0030	BBb	.0015	Se	No	2½x1⅛	2½x1⅛	2½x1⅛							32.88	11
12	Cadillac V12-85	2.50x2¼	Bab	Own	.0015	.0055	No	Sp	B	Amp	7	3	.0030	BSb	.0010	Se	No	2⅝x2⅛	2⅝x1½	2⅝x1½	2⅝x3⅛						74.21	12
13	Cadillac V16-90	2.50x2¼	Bab	Own	.0015	.0055	No	Sp	B	Amp	4	C	.0030	BSb	.0010	Se	No	2⅝x2⅛	2⅝x1½	2⅝x1½	2⅝x1½	2⅝x3.69					82.90	13
14	Chevrolet Master	2⅛x1⅛	Bab	Own	.0012	.010	So	Sp	A	Yes	7	3	.0050	BSb	.0030	Sl	So	2¼x1⅛	2¼x1⅛	2¾x1⅛	2¼x1⅝						42.12	14
15	Chevrolet Master De Luxe	2⅛x1⅛	Bab	Own	.0012	.010	So	Sp	A	Yes	7	3	.0050	BSb	.0030	Sl	So	2¼x1⅛	2¼x1⅛	2¾x1⅛	2¼x1⅝						42.12	15
16	Chrysler Royal C-16	2⅛x1¼	BSb	CGB	.0015	.0085	No	Se	A	Yes	Yes	R	.0050	BSb	.0015	Sl	No	2½x1⅛	2½x1⅛	2½x1⅛	2½x1⅞						45.7	16
17	Chrysler Imperial C-14	2⅛x1⅝	BSb	CGB	.0020	.0085	No	Se	A	Yes	Yes	R	.0050	BSb	.0015	Sl	No	2⅝x1⅛	2⅝x1⅛	2⅝x1⅛	2⅝x1⅛	2⅝x2⅛					62.1	17
18	Chrysler Cus. Imp. C-15	2⅛x1⅝	BSb	CGB	.0020	.0085	No	Se	A	Yes	Yes	R	.0050	BSb	.0015	Sl	No	2⅝x1⅛	2⅝x1⅛	2⅝x1⅛	2⅝x1⅛	2⅝x2⅛					62.1	18
19	Chrysler Airflow C-17	2⅛x1⅝	BSb	CGB	.0020	.0085	No	Se	A	Yes	Yes	R	.0050	BSb	.0015	Sl	No	2⅝x1⅛	2⅝x1⅛	2⅝x1⅛	2⅝x1⅞	2⅝x2⅛					62.1	19
20	Cord Front Drive 812	2x2⅝	Bab		.0022	.0090	No	Sp	A	No	4	C	.0070	BBb	.0027	Sl	No	2½x2.416	2½x2.128	2½x1.785							45.7	21
21	De Soto S-3	2⅛x1¼	BSb	CGB	.0015	.0085	No	Se	A	Yes	Yes	R	.0050	BSb	.0015	Sl	No	2½x1⅛	2½x1⅛	2½x1⅛	2½x1⅞						40.6	22
22	Dodge D-5	2⅛x1	BSb	CGB	.0015	.0085	No	Se	A	No	Yes	R	.0050	BSb	.0015	Sl	No	2½x1⅛	2½x1⅛	2½x1⅛	2½x1⅞						106.3	23
23	Duesenberg J	2⅞x1¾	Bab	Own	.0020		No	Sp		No	Yes		.0030	BBb	.0015			2¾x3⅛	2¾x1⅞	2¾x2⅝	2¾x1⅞	2¾x2⅝					33.3	24
24	Ford V8-60	1.60x1.54	Spec	Own			No	Flo	A	No	Yes	R	.0040	BSb	.0002	Sl	No	2.00x1.66	2.0x1.64	2.00x2.00							43.73	25
25	Ford V8-85	2x1.937	Spec	Own			No	Flo	A	No	Yes	R	.0040	BSb	.0002	Sl	No	2.40x1.83	2.4x1.73	2.4x2.25							37.66	26
26	Graham Crusader 85	1⅛x1½	CS-Sb		.0018		No	Se	A	No	5	F	.0050	CS-Sb	.002	Sl	No	2¼x1⅛	2¼x1⅛	2¼x1⅛	2¼x1⅛						37.66	27
27	Graham Cavalier 95	2⅛x1⅛	CS-Sb		.002		No	Se	A	Lan	7	F	.0050	CS-Sb	.002	Sl	No	2¼x1⅛	2¼x1⅛	2¼x1⅛	2¼x1⅛						37.66	28
28	Graham Supercharger 116	2⅛x1⅛	CS-Sb		.002	.005	No	Se	A	Lan	7	F	.0050	CS-Sb	.002	Sl	No	2¼x1⅛	2¼x1⅛	2¼x1⅛	2¼x1⅛						37.66	29
29	Graham Supercharger 120	2⅛x1⅛	CS-Sb		.002	.005	No	Se	A	Lan	7	F	.0050	CS-Sb	.002	Sl	No	2¼x1⅛	2¼x1⅛	2¼x1⅛	2¼x1⅛						37.66	30
30	Hudson 73	1.937x1.375	B-Sp	Own	.001	.008	Lam	Sp	A	Yes	8	C	.0090	BBb	.001	In	Lam	2.343x1.625	2.375x1.750	2.406x2.375							42.96	30
31	Hudson 74-5-6-7	1.937x1.375	B-Sp	Own	.001	.008	Lam	Sp	A	Yes	8	C	.0090	BBb	.001	In	Lam	2.381x1.625	2.312x1.375	2.343x1.875	2.375x1.375	2.406x2.000					61.62	31
32	La Salle 37-50	2.460x2⅛	BSb	Bohn	.0015	.0045	No	Se	A	No	6	C	.0030	BBb	.0015	Sl	No	2½x1⅛	2½x1⅛	2½x1⅛							32.88	32
33	Lincoln-Zephyr	2.12x.787	Cla	Own	.0022		No	Se	A	Yes	9	R	.0040	Cla	.0020		No	2.40x1.839	2.40x1.375	2.40x1.375	2.40x2.254						52.35	33
34	Lincoln V-12	2½x1	Cla		.0022	.0105	No	Se	B	Yes	Yes	4	.0055	Cla	.0020		Yes	2½x1⅝	2½x1⅝	2½x1⅝	2½x3½						69.06	34
35	Nash Lafayette 400-3710	2x1.426	BSb		.0020	.010	Yes	Se	A	Yes	4	C	.0040	BSb	.0020	Sl	No	2¼x1¼	2¼x1⅛	2¼x1⅛	2¼x1⅛	2¼x1⅛	2¼x1⅝				65.30	35
36	Nash Ambassador 6-3720	2x1⅞	BSb		.0020	.010	Yes	Se	A	Yes	4	C	.0040	BSb	.0020	Sl	No	2¼x1¼	2¼x1⅛	2¼x1⅛	2¼x1⅞	2¼x1⅛	2¼x1⅝				66.30	36
37	Nash Ambassador 8-3780	2x1⅞	BSb		.0020	.010	Yes	Se	B	Yes	No	C	.0040	BSb	.0020	Sl	No	2¼x1½	2¼x1⅛	2¼x1⅛	2¼x1⅝	2¼x1⅛	2¼x1⅛	2¼x1⅛	2¼x2⅛		83.17	37
38	Oldsmobile F-37	2¼x1¾	BSb	Own	.0020	.0075	No	Se	A	Yes	7	F	.0060	BSb	.0020	Sl	No	2¼x1⅛	2¼x1½	2¼x1½	2¼x1⅛						51.23	38
39	Oldsmobile L-37	2¼x1¾	BSb	Own	.0020	.0075	No	Se	A	Yes	8	F	.0060	BSb	.0020	Sl	No	2¼x1⅛	2¼x1⅛	2¼x1⅛	2¼x1⅛	2¼x1⅛					55.29	39
40	Packard Six	2⅛x1¼	Bab		.0015	.0045	No	Se	B	Yes	Yes	1	.0055	BSb	.002	Sl	No	2¾x1.588	2¾x1⅞	2¾x1⅞	2¾x2⅛						35.16	40
41	Packard 120-C	2⅛x1¼	Bab		.0015	.007	No	Se	B	Yes	Yes	C	.0055	BSb	.002	Sl	No	2¾x1¼	2¾x1⅞	2¾x1⅞	2¾x1⅞	2¾x2⅛					56.60	41
42	Packard Super Eight	2⅛x1⅞	Cla		.0015	.0045	No	Se	B	Yes	Yes	7	.0055	BSb	.0015	Sl	No	2¾x1¼	2¾x1⅞	2¾x1⅞	2¾x1⅞	2¾x2⅛	2⅝x1⅛	2⅝x1⅛	2⅝x1⅛	2⅝x2⅛	66.55	42
43	Packard Twelve	2⅛x1⅛	Cla		.0012	.0090	No	Se		Yes	Yes	1	.0055	BSb	.0015		No	2¾x2⅛	2¾x1¾	2¾x1¾	2¾x2⅛						44.55	43
44	Pierce-Arrow 1701	2.25x1.25	Bab		.0017	.0050	No	Sp	A	Yes	16	F	.0030	BBb	.0022	Sl	No	2⅝x1¾	2⅝x1⅜	2⅝x1⅜	2⅝x1¾	2⅝x1⅛	2⅝x1⅛	2⅝x1⅛	2⅝x2⅛		99.20	44
45	Pierce-Arrow 1702	2.12x1.12	Bab		.0017	.0075	No	Sp	A	Yes	12	F	.0030	BBb	.0022	Sl	No	2½x1¾	2½x1¼	2½x1¼	2½x1⅞	2½x1¼	2½x1⅛	2½x1⅛	2½x3.473		94.78	45
46	Pierce-Arrow 1703	2.12x1.12	Bab		.0017	.0075	No	Sp	A	Yes	12	F	.0030	BBb	.0022	Sl	No	2½x1¾	2½x1¼	2½x1¼	2½x1⅞	2½x1¼	2½x1¼	2½x3.473			94.78	46
47	Plymouth P-3	1⅛x1	BSb	CGB	.0015	.0085	No	Se		No	Yes	R	.005	BSb	.0015	Sl	No	2¼x1⅛	2¼x1⅛	2¼x1⅛	2¼x1⅞						35.60	47
48	Plymouth P-4	1⅛x1	BSb	CGB	.0015	.0085	No	Se		No	Yes	R	.005	BSb	.0015	Sl	No	2¼x1⅛	2¼x1⅛	2¼x1⅛	2¼x1⅞						36.60	48
49	Pontiac De Luxe Six 37-26 CA	2x1⅛	BSb	Own	.0010	.0075	No	Se	A	Yes	Yes	RC	.0055	BSb	.0020	Sl	No	2⅜x1⅜	2⅛x1⅛	2⅛x1⅛	2⅛x2						13.50	49
50	Pontiac De L. Eight 37-28CA	2x1⅛	BSb	Own		.0075	No	Se	A	Yes	Yes	RC	.0055	BSb	.0020	Sl	No	2⅜x1⅜	2⅛x1⅛	2⅛x1⅛	2⅛x1.375	2⅛x2					16.30	50
51	Studebaker Dict. & Dict. Pl. 6	2⅛x1⅝	Bab	Own	.0012	.007	No	Sp	A	Yes	Yes	1	.0045	BSb	.0015	Sl	No	2⅜x1⅛	2⅛x1⅛	2⅛x1⅛	2⅛x1⅝						13.52	51
52	Studebaker President	1⅞x1⅞	Cle	CGB	.0017	.0075	No	Se	A	Yes	Yes	1	.0045	BSb	.0020	Sl	No	2⅛x1	2⅛x⅞	2⅛x⅞	2⅛x⅞	2⅛x1⅜	2⅛x⅞	2⅛x⅞	2⅛x⅞	2⅛x1⅛	21.00	52
53	Terraplane 71	1.937x1.375	BSp	Own	.001	.008	Lam	Sp	A	Yes	Yes	C	.009	BBb	.0010	In	Lam	2.343x1.625	2.375x1.750	2.406x2.375							42.96	53
54	Terraplane 72	1.937x1.375	BSp	Own	.001	.008	Lam	Sp	A	Yes	Yes	C	.009	BBb	.0010	In	Lam	2.343x1.625	2.375x1.750	2.406x2.375							42.96	54
55	Willys 37	1⅛x1⅛	BSp	Own	.0015	.007	No	Sp	A	No	No	F	.005	BSb	.0015	Sl	No	2.334x2.00	2.334x2.00	2.334x1⅛							38.04	55

ABBREVIATIONS:

*—Maximum
(a)—No. 93 High Chromium or No. 1 Silchrome
A—Above
Amp—Amplex
B—Below
Bab—Babbitt
BBb—Babbitt Bronze Backed
BSb—Babbitt Steel Backed
B-Sp—Babbitt Spun
C—Center
CGB—Cleveland Graphite Bronze Co.
Cla—Copper Lead Alloy
Cle—Clevite
CS-Sb—Cadmium Silver-Steel Backed
F—Front
Flo—Floating
In—Integral with Case and Cap
Lam—Laminated
Lan—Lanchester Type
R—Rear
RC—Rear Center
Se—Separate
Sl—Slip in Type
So—Solid
Sp—Spun
Spec—Special Alloy

VALVES—INTAKE AND EXHAUST

Line Number	CAR MAKE AND MODEL	Arrangement	INTAKE VALVE															EXHAUST VALVE														
			Make	Head		Seat		Stem				Stem to Guide Clearance (Ins.) Average	Lift (Ins.)	Springs				Make	Head		Seat		Stem				Stem to Guide Clearance (Ins.) Average	Lift (Ins.)	Springs				Line Number
				Material	Diameter (Ins.)	Angle (Deg.)	How Cooled	Material	Length (Ins.)	Diameter (Ins.)	End Style			Valve Open		Valve Closed			Material	Diameter (Ins.)	Angle (Deg.)	How Cooled	Material	Length (Ins.)	Diameter (Ins.)	End Style			Valve Open		Valve Closed		
														Pressure (Average)	Length (Ins.)	Pressure (Average)	Length (Ins.)												Pressure (Average)	Length (Ins.)	Pressure (Average)	Length (Ins.)	
1	Auburn 654	L	Tmp	3140	1 9/16	30	.....	3140	5 1/4	.342	.....	.....	1/16	88	1 27/32	47	2 3/4	Tmp	Sil	1 13/32	45	.....	Sil-1	5 1/4	.342	.....	.....	1/16	88	1 27/32	47	2 3/4	1
2	Auburn 852	L	Tmp	3140	1 9/16	30	.....	3140	5 1/4	.342	.....	.....	1/16	88	1 27/32	47	2 3/16	Tmp	Sil	1 13/32	45	.....	Sil-1	5 1/4	.342	.....	.....	1/16	88	1 27/32	47	2 3/16	2
3	Auburn SC-852	L	Tmp	3140	1 9/16	30	.....	3140	5 1/4	.342	.....	.....	1/16	88	1 27/32	47	2 3/16	Tmp	Sil	1 13/32	45	.....	Sil-1	5 1/4	.342	.....	.....	1/16	88	1 27/32	47	2 3/16	3
4	Buick 37-40	I	Tmp	NC	1 11/32	45	WC	NC	4 5/16	.371	G	.0025	.348	118‡	(f)	47‡	(g)	Tmp	Sil-1	1 11/32	45	WC	Sil-C	4 5/16	.3715	G	.0030	.342	118‡	(f)	47‡	(g)	4
5	Buick 37-60	I	Tmp	NC	1 11/32	45	WC	NC	4 3/8	.371	G	.0025	.347	118‡	(f)	47‡	(g)	Tmp	Sil-1	1 1/16	45	WC	Sil-C	4 3/32	.3715	G	.0030	.348	118	(f)	47‡	(g)	5
6	Buick 37-80	I	Tmp	NC	1 11/32	45	WC	NC	4 3/8	.371	G	.0025	.347	118‡	(f)	47‡	(g)	Tmp	Sil-1	1 1/16	45	WC	Sil-C	4 3/32	.3715	G	.0030	.348	118	(f)	47‡	(g)	6
7	Buick 37-90	I	Tmp	NC	1 11/32	45	WC	NC	4 3/8	.371	G	.0025	.347	118‡	(f)	47‡	(g)	Tmp	Sil-1	1 1/16	45	WC	Sil-C	4 3/32	.3715	G	.0030	.348	118	(f)	47‡	(g)	7
8	Cadillac V8-60	L	WR	3140	1.88	45	WC	3140	5 23/64	.342	.....	.0023	.335	145	1.58	66	1.92	WR	2112	1.63	45	WC	2112	5 23/64	.341	.....	.0033	.345	145	1.58	66	1.92	8
9	Cadillac V8-65	L	WR	3140	1.88	45	WC	3140	5 23/64	.342	.....	.0023	.335	145	1.58	66	1.92	WR	2112	1.63	45	WC	2112	5 23/64	.341	.....	.0033	.345	145	1.58	66	1.92	9
10	Cadillac V8-70	L	WR	3140	1.88	45	WC	3140	5 23/64	.342	.....	.0023	.335	145	1.58	66	1.92	WR	2112	1.63	45	WC	2112	5 23/64	.341	.....	.0033	.345	145	1.58	66	1.92	10
11	Cadillac V8-75	L	WR	3140	1.88	45	WC	3140	5 23/64	.342	.....	.0023	.335	145	1.58	66	1.92	WR	2112	1.63	45	WC	2112	5 23/64	.341	.....	.0033	.345	145	1.58	66	1.92	11
12	Cadillac V12-85	I	WR	3140	1.51	45	WC	3140	6.22	.339	.....	.0015	.347	(b)	(b)	(c)	(c)	WR	2112	1.38	45	WC	2112	6.22	.339	.....	.0025	.347	(b)	(b)	(c)	(c)	12
13	Cadillac V16-90	I	WR	3140	1.51	45	WC	3140	6.22	.339	.....	.0015	.347	(b)	(b)	(c)	(c)	WR	2112	1.38	45	WC	2112	6.22	.339	.....	.0025	.347	(b)	(b)	(c)	(c)	13
14	Chevrolet Master	I	Own	ExSt	1 11/32	30	WC	ExSt	6 5/16	.341	G	.0020	5/16	98	1 5/16	45	1 7/8	Own	Sil-1	1 15/16	30	Sp	Sil-1	4 11/32	.340	G	.0030	5/16	98	1 5/16	45	1 7/8	14
15	Chevrolet Master De Luxe	I	Own	ExSt	1 11/32	30	WC	ExSt	6 5/16	.341	G	.0020	5/16	98	1 5/16	45	1 7/8	Own	Sil-1	1 15/16	30	Sp	Sil-1	4 11/32	.340	G	.0030	5/16	98	1 5/16	45	1 7/8	15
16	Chrysler Royal C-16	L	Tmp	CNS	1 11/32	45	Sp	CNS	4 15/32	.3405	G	.002	11/32	105	1 13/32	42 1/2	1 3/4	Tmp	Sil-10	1 17/32	45	Sp	Sil-10	4 15/32	.3405	G	.004	11/32	105	1 13/32	42 1/2	1 3/4	16
17	Chrysler Imperial C-14	L	Tmp	CNS	1 11/32	45	WC	CNS	5 5/16	.3405	G	.002	11/32	107	1 11/16	48	2 3/32	Tmp	Sil-10	1 13/32	45	WC	Sil-10	5 5/16	.3405	G	.002	11/32	107	1 11/16	48	2 3/32	17
18	Chrysler Custom Imperial C-15	L	Tmp	CNS	1 11/32	45	WC	CNS	5 1/2	.3405	G	.002	11/32	107	1 11/16	48	2 3/32	Tmp	Sil-10	1 13/32	45	WC	Sil-10	5 1/2	.3405	G	.002	11/32	107	1 11/16	48	2 3/32	18
19	Chrysler Airflow C-17	L	Tmp	CNS	1 11/32	45	WC	CNS	5 1/2	.3405	G	.002	11/32	107	1 11/16	48	2 3/32	Tmp	Sil-10	1 13/32	45	WC	Sil-10	5 1/2	.3405	G	.002	11/32	107	1 11/16	48	2 3/32	19
20	Cord Front Drive 812	L	Tmp	3140	1 11/32	30	WC	3140	5 17/32	.3425	G	.002	11/32	122	1 27/32	59 1/2	2 1/16	Tmp	Sil-1	1 27/32	45	WC	Sil-1	5 17/32	.3425	G	.002	11/32	122	1 27/32	59 1/2	2 1/16	20
21	De Soto S-3	L	Tmp	CNS	1 11/32	45	.....	CNS	4 15/32	.3405	G	.002	11/32	105	1 13/32	42 1/2	1 3/4	Tmp	Sil-10	1 17/32	45	Sp	Sil-10	4 15/32	.3405	G	.002	11/32	105	1 13/32	42 1/2	1 3/4	21
22	Dodge D-5	L	Tmp	CNS	1 11/32	45	Sp	CNS	4 15/32	.3405	G	.002	11/32	80	1 1/16	36	1 3/4	Tmp	Sil-1	1 13/32	45	Sp	Sil-1	4 15/32	.3405	G	.004	11/32	80	1 1/16	36	1 3/4	22
23	Duesenberg 8	OC	Tmp	CNS	1 1/2	30	Sp	CNS	5.0	11/32	.....	.360	(d)	(d)	.....	(e)	Tmp	Sil	1 1/2	30	.....	Sil	5.0	11/32	.....	.360	(d)	(d)	.....	(e)	23		
24	Ford V8-60	L	.....	CNS	1.281	45	WC	CNS	.....	.2785	U	.0025	.251	50	.....	23	2.05	.....	Sil-10	1.231	45	.....	Sil-10	.....	.2785	U	.0025	.251	50	.....	28	2.05	24
25	Ford V8-85	L	.....	CNS	1.537	45	WC	CNS	.....	.3105	U	.0025	.292	68	.....	34	2.13	.....	Sil-10	1.537	45	.....	Sil-10	.....	.3105	U	.0025	.292	68	.....	34	2.13	25
26	Graham Crusader 85	L	.....	CNS	1 13/32	30	WC	CNS	.....	1/16	Dr	.0018	1/16	87	.....	34	.....	Tmp	Sil	1 13/32	45	WC	Sil	.....	1/16	Dr	.0028	1/16	87	.....	34	.....	26
27	Graham Cavalier 95	L	.....	CNS	1 13/32	30	WC	CNS	.....	1/16	Dr	.0018	1/16	87	.....	34	.....	Tmp	XCR	1 21/32	45	WC	XCR	.....	1/16	Dr	.0028	1/16	87	.....	34	.....	27
28	Graham Supercharger 116	L	.....	CNS	1 13/32	30	WC	CNS	4 7/8	1/16	Dr	.0018	1/16	87	.....	34	.....	Tmp	XCR	1 21/32	45	WC	XCR	4 7/8	1/16	Dr	.0028	1/16	87	.....	34	.....	28
29	Graham Supercharger 120	L	.....	CNS	1 13/32	30	WC	CNS	4 7/8	1/16	Dr	.0018	1/16	87	.....	34	.....	Tmp	XCR	1 21/32	45	WC	XCR	4 7/8	1/16	Dr	.0028	1/16	87	.....	34	.....	29
30	Hudson 73	L	WR	Sil	1.375	45	WC	3140	5.343	.375	G	.0022	.343	102	1.656	44	2.00	WR	Sil-1	1.375	45	WC	Sil-1	5.343	.375	G	.004	.343	102	1.656	44	2.00	30
31	Hudson 74-5-6-7	L	WR	Sil	1.50	45	WC	3140	5.093	.375	G	.0022	.343	102	1.656	44	2.00	WR	Sil-1	1.375	45	WC	Sil-1	5.093	.375	G	.004	.343	102	1.656	44	2.00	31
32	La Salle 37-50-V8	L	WR	3140	1.88	45	WC	3140	5 23/64	.342	.....	.0023	.335	145	1.581	66	1.92	WR	Sil-1	1.63	45	WC	Sil-1	5 23/64	.3411	.....	.0033	.345	145	1.58	66	1.92	32
33	Lincoln-Zephyr	L	.....	CNS	1.53	45	WC	CNS	4 3/4	.311	.....	.0025	.292	64	.....	34	.....	.....	Sil-10	1.53	45	WC	Sil-10	4 3/4	.311	.....	.0025	.292	64	.....	34	.....	33
34	Lincoln V-12	L	.....	3140	1 11/32	45	WC	.....	.....	1/16	.....	.004	11/32	.....	.....	.....	.....	.....	Sil-10	1 11/32	45	WC	Sil-10	.....	1/16	.....	.004	11/32	.....	.....	.....	.....	34
35	Nash Lafayette 400-3710	L	.....	CNS	1 13/32	45	WC	CNS	.....	.340	G	.0030	1/16	.....	.....	.....	.....	.....	Sil-1	1 13/32	45	WC	Sil-1	.....	.340	G	.0030	1/16	.....	.....	.....	.....	35
36	Nash Ambassador 6-3720	I	WR	CNS	1.75	45	WC	CNS	5 11/32	.372	G	.0030	11/32	.....	.....	.....	.....	WR	Sil-1	1.59	45	WC	Sil-1	5 11/32	.372	G	.0030	11/32	.....	.....	.....	.....	36
37	Nash Ambassador 8-3780	I	WR	3140	1.65	45	WC	3140	5 23/32	.372	G	.0030	11/32	.....	.....	.....	.....	WR	Sil-1	1.46	45	WC	Sil-1	5 23/32	.372	G	.0030	11/32	.....	.....	.....	.....	37
38	Oldsmobile F-37	L	Tmp	3140	1 9/16	30	WC	3140	5 61/64	11/32	G	.0022	5/16	94	1 31/32	46	2 3/8	Tmp	XCR	1 27/32	45	WC	XCR	5 61/64	11/32	G	.0032	5/16	94	1 31/32	46	2 3/8	38
39	Oldsmobile L-37	L	Tmp	3140	1 9/16	30	WC	3140	5 61/64	11/32	G	.0022	5/16	94	1 31/32	46	2 3/8	Tmp	XCR	1 27/32	45	WC	XCR	5 61/64	11/32	G	.0032	5/16	94	1 31/32	46	2 3/8	39
40	Packard Six	L	.....	CNS	1.57	30	.....	CNS	5 5/8	.340	SK	.0001	.300	110	1 1/16	40	1 5/8	DMV	2112	1.406	45	.....	2112	5 5/8	.340	SK	.0001	.300	110	1 1/16	40	1 5/8	40
41	Packard 120-C	L	.....	CNS	1 17/32	30	.....	CNS	5 5/8	.340	SK	.0001	.300	110	1 1/16	40	1 5/8	DMV	2112	1 13/32	45	.....	2112	5 5/8	.340	SK	.0001	.300	110	1 1/16	40	1 5/8	41
42	Packard Super Eight	L	.....	CNS	1 13/32	45	.....	CNS	7 31/32	.3405	SK	.0025	.358	159	.....	73†	3 1/16	DMV	2112	1 13/32	45	.....	2112	7 31/32	.3405	SK	.004	.358	159*	.....	73	3 1/16	42
43	Packard Twelve	ML	.....	CNS	1 41/64	45	.....	CNS	6 33/64	.3405	SK	.0025	.3125	145	.....	70	2 5/16	DMV	2112	1 33/64	45	.....	2112	6 33/64	.338	SK	.005	.3125	145	.....	70	2 5/16	43
44	Pierce-Arrow 1701	L	.....	CNS	1 31/64	45	WC	CNS	4 3/4	.373	.....	.0020	.335	124	1 25/32	62 1/2	2 3/32	DMV	2112	1 9/16	45	WC	2112	4 3/4	.372	.....	.0030	.343	124	1 25/32	62 1/2	2 3/32	44
45	Pierce-Arrow 1702	L	.....	CNS	1 31/64	45	WC	CNS	4 3/4	.373	.....	.0020	.324	124	1 25/32	62 1/2	2 3/32	DMV	2112	1 9/16	45	WC	2112	4 3/4	.372	.....	.0030	.324	124	1 25/32	62 1/2	2 3/32	45
46	Pierce-Arrow 1703	L	.....	CNS	1 31/64	45	WC	CNS	4 3/4	.373	.....	.0020	.324	124	1 25/32	62 1/2	2 3/32	DMV	2112	1 9/16	45	WC	2112	4 3/4	.372	.....	.0030	.324	124	1 25/32	62 1/2	2 3/32	46
47	Plymouth P-3	L	Tmp	CNS	1 15/32	45	Sp	CNS	4 23/32	.3405	G	.0020	5/16	80	1 7/16	36	1 3/4	Tmp	Sil-1	1 13/32	45	Sp	Sil-1	4 23/32	.3405	G	.004	5/16	80	1 7/16	36	1 3/4	47
48	Plymouth P-4	L	Tmp	CNS	1 13/32	45	Sp	CNS	4 23/32	.3405	G	.0020	5/16	80	1 7/16	36	1 3/4	Tmp	Sil-1	1 13/32	45	Sp	Sil-1	4 23/32	.3405	G	.004	5/16	80	1 7/16	36	1 3/4	48
49	Pontiac De Luxe Six 37-26 CA	L	Own	Sil	1 13/32	30	WC	Sil	4 15/16	.3105	W	.0006*	3/16	96	1 19/32	56	1 23/32	Own	Sil-1	1 13/32	45	WC	Sil-1	4 15/16	.3105	W	.0006*	3/16	96	1 19/32	56	1 23/32	49
50	Pontiac De Luxe Eight 37-28 CA	L	Own	Sil	1 13/32	30	WC	Sil	4 15/16	.3105	W	.0006*	3/16	96	1 19/32	56	1 23/32	Own	Sil-1	1 13/32	45	WC	Sil-1	4 15/16	.3105	W	.0006*	3/16	96	1 19/32	56	1 23/32	50
51	Studebaker Dict. & Dict. Pl. 6	L	W-D	CNS	1 13/32	45	Sp	CNS	5 5/32	11/32	G	.002	11/32	130	1 3/4	59 1/2	2 3/32	W-D	(a)	1 3/32	45	Sp	(a)	5 5/32	11/32	G	.002	11/32	130	1 3/4	59 1/2	2 3/32	51
52	Studebaker President	L	W-D	CNS	1 13/32	45	WC	CNS	5 5/32	11/32	G	.002	11/32	130	1 3/4	50 1/2	2 3/32	W-D	(a)	1 3/32	45	WC	(a)	5 5/32	11/32	G	.002	11/32	130	1 3/4	59 1/2	2 3/32	52
53	Terraplane 71	L	WR	3140	1.375	45	WC	3140	5.343	.375	G	.0022	.343	102	1.656	44	2.0	WR	Sil	1.375	45	WC	Sil-1	5.343	.375	G	.004	.343	102	1.656	44	2.0	53
54	Terraplane 72	L	WR	3140	1.375	45	WC	3140	5.343	.375	G	.0022	.343	102	1.656	44	2.0	WR	Sil	1.375	45	WC	Sil-1	5.343	.375	G	.004	.343	102	1.656	44	2.0	54
55	Willys 37	L	WR	CNS	1 17/32	45	WC	CNS	5 3/4	.372	.....	.0030	21/64	85 1/2	1 13/16	46 1/2	2 1/4	WR	(a)	1 13/32	45	WC	(a)	5 3/4	.371	.....	.004	21/64	85 1/2	1 13/16	46 1/2	2 1/4	55

†—Dual Springs
‡—Total—Dual Springs
*—Minimum
(a)—Wilcox Rich-Silic. No. 1 or Detroit R4
Aus—Austenitic Steel
(b)—Outer—115½ lbs. @ 1.578
—Inner—51¾ lbs. @ 1.407
(c)—Outer—50 lbs. @ 1.922
—Inner—19½ lbs. @ 1.751
CNS—Chrome Nickel Steel
CNSi—Chrome Nickel-Silicon Steel
(d)—Outer—65 lbs. @ 1 13/16
—Inner 37 lbs. @ 1 13/16

ABBREVIATIONS

DMV—Detroit Motor Valve
DR—Drilled for Pin
(e)—Inner 2 1/2—outer 2 3/4 free length
ExSt—Extruded Steel
(f)—Inner 1 5/8—outer 1 3/4
(g)—Inner 1 13/16—outer 1 7/8
G—Grooved
I—In Head
L—Ell-Head
ML—Modified Ell-Head
NC—Nickel Chromium
OC—Overhead Camshaft
Han—Handy
Sil—Silchrome
Sil-C—Silchrome Copper Plated
SK—Slot and Key
Sp—Spray
Th—Thermostatic
Tol—Toledo
Tmp—Thompson Products
U—Upset U type
W—Wedge Type
WC—Water Circulation
W-D—Wilcox Rich or Detroit
WR—Wilcox Rich
XCR—Thompson XCR Steel

TIMING GEARS AND VALVE TIMING

Line Number	CAR MAKE AND MODEL	CRANKSHAFT GEAR		CAMSHAFT GEAR		GENERATOR GEAR		TIMING CHAIN					VALVE TAPPET CLEARANCE				VALVE TIMING				Line Number
													Intake		Exhaust		Intake		Exhaust		
		Make	Material	Make	Material	Make	Material	Make	No. of Links	Width	Pitch	Adjustment	Operating	Valve Timing	Operating	Valve Timing	Opens	Closes	Opens	Closes	
1	Auburn 654	Whit	SS	Whit	1020	.....	.....	Whit	49	1.00	.500	No	.010H	.012H	.010H	.012H	7½B	37½AL	50BL	5A	1
2	Auburn 852	Whit	SS	Whit	1020	.....	.....	Whit	49	1.00	.500	No	.010H	.012H	.010H	.012H	7½B	37½AL	50BL	5A	2
3	Auburn SC-852	Whit	SS	Whit	1020	.....	.....	Whit	58	1¼	.500	No	.010H	.012H	.010H	.012H	7½B	37½AL	50BL	5A	3
4	Buick 37-40	Own	1112	Own	CI	No	No	LB	49	1.00	.500	No	.015H	.004	.015H	.004	13B	68AL	55BL	22A	4
5	Buick 37-60	Own	1112	Own	CI	No	No	LB	50	1.25	.500	No	.015H	.004	.015H	.004	14B	71AL	56BL	25A	5
6	Buick 37-80	Own	1112	Own	CI	No	No	LB	50	1.25	.500	No	.015H	.004	.015H	.004	14B	71AL	56BL	25A	6
7	Buick 37-90	Own	1112	Own	CI	No	No	LB	50	1.25	.500	No	.015H	.004	.015H	.004	14B	71AL	56BL	25A	7
8	Cadillac V8-60	Own	1120	Own	Cla	No	No	Mor	62	1¼	.375	No	AA	AA	AA	AA	TC	42AL	52BL	10A	8
9	Cadillac V8-65	Own	1120	Own	Cla	No	No	Mor	62	1¼	.375	No	AA	AA	AA	AA	TC	42AL	52BL	10A	9
10	Cadillac V8-70	Own	1120	Own	Cla	No	No	Mor	62	1¼	.375	No	AA	AA	AA	AA	TC	42AL	52BL	10A	10
11	Cadillac V8-75	Own	1120	Own	Cla	No	No	Mor	62	1¼	.375	No	AA	AA	AA	AA	TC	42AL	52BL	10A	11
12	Cadillac V12-85	Own	Stl	Own	SS	Own	Stl	Mor	110	1½	.375	AA	AA	AA	AA	AA	TC	44AL	39BL	5A	12
13	Cadillac V16-90	Own	Stl	Own	SS	Own	Stl	Mor	110	1½	.375	AA	AA	AA	AA	AA	TC	40AL	39BL	5A	13
14	Chevrolet Master	Own	Stl	Var	BF	No	No	No	No	No	No	No	.006H	.006H	.013H	.013H	9B	29AL	52BL	1B	14
15	Chevrolet Master De Luxe	Own	Stl	Var	BF	No	No	No	No	No	No	No	.006H	.006H	.013H	.013H	9B	29AL	52BL	1B	15
16	Chrysler Royal C-16	Mor	Stl	Mor	SS	No	No	Mor	48	1.00	.500	No	.008H	.014	.010H	.014	TC	50AL	48BL	2A	16
17	Chrysler Imperial C-14	Mor	Stl	Mor	SS	No	No	Mor	47	1¼	.500	No	.006H	.011	.010H	.014	2B	44AL	46BL	4A	17
18	Chrysler Custom Imperial C-15	Mor	Stl	Mor	SS	No	No	Mor	47	1¼	.500	No	.006H	.011	.010H	.014	2B	44AL	46BL	4A	18
19	Chrysler Airflow C-17	Mor	Stl	Mor	SS	No	No	Mor	47	1¼	.500	No	.006H	.011	.010H	.014	2B	44AL	46BL	4A	19
20	Cord Front Drive 812	Whit	MS	Whit	SS	No	No	Whit	58	1¼	.500	No	.009	.016	.009	.016	7½B	37½AL	50BL	5A	20
21	De Soto S-3	Mor	Stl	Mor	SS	No	No	Mor	48	1.00	.500	No	.008H	.014	.010H	.014	TC	50AL	48BL	2A	21
22	Dodge D-5	Mor	Stl	Mor	SS	No	No	Mor	48	1.00	.500	No	.008H	.011	.008H	.012	6A	46AL	42BL	8A	22
23	Duesenberg 6	LB	Stl	LB	Stl	LB	Stl	LB	126	2.00	.375	Au	.015C	.025	.015C	.025	6B	40A	40B	14A	23
24	Ford V8-60	Own	Stl	Own	Bak	No	No	No	No	No	No	No	.013C	.013	.013C	.013	9½B	54½AL	57½BL	6½A	24
25	Ford V8-85	Own	Stl	Own	Bak	No	No	No	No	No	No	No	.013C	.013	.013C	.013	9½B	54½AL	57½BL	6½A	25
26	Graham Crusader 85	LB	Stl	LB	SS	No	No	LB	46	1.00	.500	No	.010	.012	.010	.012	4½B	47½AL	47½BL	4½A	26
27	Graham Cavalier 95	LB	Stl	LB	SS	No	No	LB	46	1.00	.500	No	.010	.012	.010	.012	2A	54AL	41BL	11A	27
28	Graham Supercharger 116	LB	Stl	LB	SS	No	No	LB	46	1.00	.500	No	.010	.012	.010	.012	4½B	47½AL	47½BL	4½A	28
29	Graham Supercharger 120	LB	Stl	LB	SS	No	No	LB	46	1.00	.500	No	.010	.012	.010	.012	4½B	47½AL	47½BL	4½A	29
30	Hudson 73	Own	CI	Con	Bak	No	No	No	No	No	No	No	.008	.006H	.010	.008H	10° 40'B	60A	50B	18° 44'A	30
31	Hudson 74-5-6-7	Own	CI	Con	Bak	No	No	No	No	No	No	No	.008	.006H	.010	.008H	10° 40'B	60A	50B	18° 44'A	31
32	La Salle V8, 37-50	Own	1120	Own	Cla	No	No	Mor	62	1¼	⅜	No	AA	AA	AA	AA	TC	42AL	52BL	10A	32
33	Lincoln-Zephyr	Own	Stl	Own	Bak	No	No	No	No	No	No	No	.013C	.013	.013	.013	19½B	54½AL	57½BL	16½A	33
34	Lincoln V-12	Own	Stl	Own	Stl	Own	Stl	Mor	104	1½	¾	AA	AA	AA	AA	AA	21B	.....	.....	.....	34
35	Nash Lafayette 400-3710	Own	Stl	Own	CI	No	No	Whit	60	⅝	No	No	.015H	.015H	.015H	.015H	5A	.....	.....	.....	35
36	Nash Ambassador 6-3720	Own	Stl	Own	CI	No	No	Dia	60	⅝	No	No	.008H	.008H	.015H	.015H	24B	.....	.....	.....	36
37	Nash Ambassador 8-3780	Own	Stl	Own	CI	No	No	Whit	62	⅝	No	No	.008H	.008H	.015H	.015H	15B	.....	.....	.....	37
38	Oldsmobile F-37	Whit	Stl	Whit	CI	No	No	Whit	47	1.00	.500	No	.008H	.0125	.011H	.0156	5B	45AL	45BL	5A	38
39	Oldsmobile L-37	LB	Stl	LB	CI	No	No	LB	47	1.00	.500	No	.008H	.0124	.011H	.0156	TC	35AL	45BL	10A	39
40	Packard Six	Own	St	Own	CI	No	No	Mor	58	1¼	.375	No	.007	.007	.010	.010	5B	39AL	5A	45BL	40
41	Packard 120-C	Own	St	Own	CI	No	No	Mor	58	1¼	.375	No	.007	.007	.010	.010	5B	39AL	5A	45BL	41
42	Packard Super Eight	Own	St	Own	St	No	No	Mor	70	1½	.375	No	.004	.004	.006	.005	30B	65AL	30A	65BL	42
43	Packard Twelve	Own	St	Own	St	No	No	Mor	56	1¾	.500	No	AA	AA	AA	AA	TC	45AL	10A	35BL	43
44	Pierce-Arrow 1701	Whit	MS	Whit	CI	No	No	Whit	50	1½	.500	No	AA	.010	AA	.010	5A	45AL	40BL	12A	44
45	Pierce-Arrow 1702	Whit	MS	Whit	CI	No	No	Whit	53	1½	.500	No	AA	.004	AA	.006	19B	69AL	56BL	28A	45
46	Pierce-Arrow 1703	Whit	MS	Whit	CI	No	No	Whit	53	1½	.500	No	AA	.004	AA	.006	19B	69AL	56BL	28A	46
47	Plymouth P-3	Mor	St	Mor	SS	No	No	Mor	48	1.00	.500	No	.006H	.011	.008H	.012	6A	46AL	42BL	8A	47
48	Plymouth P-4	Mor	St	Mor	SS	No	No	Mor	48	1.00	.500	No	.006H	.011	.008H	.012	6A	46AL	42BL	8A	48
49	Pontiac De Luxe Six 37-26 CA	Own	St	Own	CI	No	No	Mor	56	1	.375	No	.012H	.015	.012H	.015	5B	39AL	45BL	5A	49
50	Pontiac De Luxe Eight 37-28 CA	Own	St	Own	CI	No	No	Mor	56	⅞	.375	No	.012H	.015	.012H	.015	5B	39AL	45BL	5A	50
51	Studebaker Dict. & Dict. Pl. 6	Own	CI	Con	Cel	No	No	No	No	No	No	No	.016C	.020	.016C	.020	15B	49AL	54BL	10A	51
52	Studebaker President	Own	CI	Con	Cel	No	No	No	No	No	No	No	.016C	.020	.016C	.020	15B	49AL	54BL	10A	52
53	Terraplane 71	Own	CI	Con	Bak	No	No	No	No	No	No	No	.008	.006H	.010	.008H	10° 40'B	60A	50B	18° 44'A	53
54	Terraplane 72	Own	CI	Con	Bak	No	No	No	No	No	No	No	.008	.006H	.010	.008H	10° 40'B	60A	50B	18° 44'A	54
55	Willys 37	LB	1020	LB	SSt	No	No	LB	47	1¼	.500	No	.004	.010	.006	.010	TC	45AL	40BL	45A	55

ABBREVIATIONS

A—After Top Dead Center
Au—Automatic
AA—Automatic Adjustment
AL—After Lower Dead Center
B—Before Top Dead Center
Bak—Bakelite
BF—Bakelite and fabric composition
BL—Before Lower Dead Center
C—Cold
Cel—Celeron
CI—Cast Iron
Con—Continental Diamond Fibre Co.
Dia—Diamond
H—Hot
LB—Link-Belt
MS—Manganese Steel
Mor—Morse
SS—Semi-Steel
St—Steel
TC—Top Dead Center
Var—Various
Whit—Whitney Chain Co.

LUBRICATION AND FUEL SYSTEMS

Line Number	CAR MAKE AND MODEL	ENGINE: Type Lubrication	Oil Pressure to: Main Bearings	Oil Pressure to: Connecting Rods	Oil Pressure to: Wristpins	Oil Pressure to: Camshaft Bearings	Oil Pressure to: Rocker Arms	Timing Gear or Chain	Oil Pump Type	Lubricant Recommended S.A.E. No.: Summer	Lubricant Recommended S.A.E. No.: Winter	Normal Oil Pressure Lbs. at M.P.H.	Relief Valve Opens—Lbs. Pressure	Crankcase Capacity—(Quarts)	Oil Pressure Gage—Make	Oil Reservoir Gage—Type	External Oil Filter—Make	Oil Cooler—Make	CHASSIS: Type	CHASSIS: Make	Crankcase Ventilated	Gasoline Tank Capacity	FUEL FEED: Type	FUEL FEED: Make	CARBURETOR: Make	CARBURETOR: Model	CARBURETOR: Size	CARBURETOR: Type	SUPER-CHARGER: Make	SUPER-CHARGER: Type	SUPER-CHARGER: How Driven	Manifold Heat Control	Automatic Choke—Make	Air Cleaner—Make	Exhaust Pipe Diameter	Muffler—Make	Line Number
1	Auburn 654	P	Y	Y	N	Y	....	....	G	30	20W	37–40‡	.....	6	.....	Bay	Pur	No	P	A-H	Y	20	CP	AC	Str	EX-22	1¼	S-DD	No	No	No	Au	No	AC	2	Buf	1
2	Auburn 852	P	Y	Y	N	Y	....	....	G	30	20W	37–40‡	.....	8	.....	Bay	Pur	No	P	A-H	Y	20	CP	AC	Str	EE-1	1	D-DD	No	No	No	Au	No	AC	2½	Buf	2
3	Auburn SC-852	P	Y	Y	N	Y	....	....	G	30	20W	37–40‡	.....	8	.....	Bay	Pur	No	P	A-H	Y	20	CP	AC	Str	EX-32	1½	S-DD	.....	Cen	G-Pf	Au	No	AC	2¼	Buf	3
4	Buick 37-40	P	Y	Y	N	Y	Y	Po	G	30	20	45–35	45	6	AC	Bay	No	No	P	Ln	Y	18	CP	AC	Str(b)	AA-1	1	D-DD	No	No	No	Th	DR	AC	2	Wal	4
5	Buick 37-60	P	Y	Y	N	Y	Y	Po	G	30	20	45–35	45	8	AC	Bay	No	No	P	Ln	Y	18	CP	AC	Str(c)	AA-2	1¼	D-DD	No	No	No	Th	DR	AC	2¼	Wal	5
6	Buick 37-80	P	Y	Y	N	Y	Y	Po	G	30	20	45–35	45	8	AC	Bay	No	No	P	Ln	Y	20	CP	AC	Str(c)	AA-2	1¼	D-DD	No	No	No	Th	DR	AC	2¼	Wal	6
7	Buick 37-90	P	Y	Y	N	Y	Y	Po	G	30	20	45–35	45	8	AC	Bay	No	No	P	Ln	Y	20	CP	AC	Str(c)	AA-2	1¼	D-DD	No	No	No	Th	DR	AC	2¼	Wal	7
8	Cadillac V8-60	P	Y	Y	Y	Y	....	Po	G	30	20W	30–60	30	7	AC	Bay	Han	No	P	Ln	Y	22	CP	AC	Str	AA-25	1¼	D-DD	No	No	No	.....	Str	AC	2¼	Old	8
9	Cadillac V8-65	P	Y	Y	Y	Y	....	Po	G	30	20W	30–60	30	7	AC	Bay	Han	No	P	Ln	Y	25	CP	AC	Str	AA-25	1¼	D-DD	No	No	No	.....	Str	AC	2½	Old	9
10	Cadillac V8-70	P	Y	Y	Y	Y	....	Po	G	30	20W	30–60	30	7	AC	Bay	Han	No	P	Ln	Y	25	CP	AC	Str	AA-25	1¼	D-DD	No	No	No	.....	Str	AC	2½	Old	10
11	Cadillac V8-75	P	Y	Y	Y	Y	....	Po	G	30	20W	30–60	30	7	AC	Bay	Han	No	P	Ln	Y	25	CP	AC	Str	AA-25	1¼	D-DD	No	No	No	.....	Str	AC	2½	Old	11
12	Cadillac V12-85	P	Y	Y	Y	Y	....	Po	G	30	20W	30–60	14	9	AC	Bay	Han	No	P	Ln	Th	25	CP	AC	DL	51	1½	2-SU	No	No	No	.....	DL	AC	2½	Own	12
13	Cadillac V16-90	P	Y	Y	Y	Y	....	Po	G	30	20W	30–60	14	10	AC	Fl	Han	No	P	Ln	Th	30	CP	AC	DL	51	1½	2-SU	No	No	No	.....	DL	AC	2½	Old	13
14	Chevrolet Master	P	Y	Y	N	Y	Y	Po	G	20	20W	13.5–50	75	5	AC	Bay	No	No	P	.....	Y	15	CP	AC	Car	W-1	1¼	S-DD	No	No	No	Au	No	AC	1⅞	Own	14
15	Chevrolet Master De Luxe	P	Y	Y	N	Y	Y	Po	G	20	20W	13.5–50	75	5	AC	Bay	No	No	P	.....	Y	15	CP	AC	Car	W-1	1¼	S-DD	No	No	No	Au	No	AC	1⅞	Own	15
16	Chrysler Royal C-16	P	Y	Y	N	Y	....	Po	G	30	20W	40–20	42½	5	Mot	Bay	Pur	No	P	A-H	Y	16	CP	AC	Car	E6K2	1½	S-DD	No	No	No	Au	Yes	Bur	2	NS	16
17	Chrysler Imperial C-14	P	Y	Y	N	Y	....	Po	G	30	20W	40–20	42½	6	Mot	Bay	Pur	No	P	A-H	Y	16	CP	AC	Str	AAOV-1	1½	D-DD	No	No	No	Au	Yes	AC	2	NS	17
18	Chrysler Custom Imperial C-15	P	Y	Y	N	Y	....	Po	G	30	20W	40–20	42½	6	Mot	Bay	Pur	No	P	A-H	Y	20	CP	AC	Str	AAOV-1	1½	D-DD	No	No	No	Au	Yes	AC	2¼	NS	18
19	Chrysler Airflow C-17	P	Y	Y	N	Y	....	Po	G	30	20W	40–20	42½	6	Mot	Bay	Pur	No	P	A-H	Y	21	CP	AC	Str	EE-22	1¼	D-DD	No	No	No	Au	Yes	AC	2¼	Bur	19
20	Cord Front Drive 812	P	Y	Y	Y	Y	Y	Po	G	30	20W	40-ND	.....	7	SW	Bay	.....	No	P	A-H	Y	20	CP	AC	Str	EE-15	1	D-DD	No	No	No	No	Str	AC	2	NS	20
21	De Soto S-3	P	Y	Y	N	Y	....	Po	G	30	20W	40–20	42½	5	Mot	Bay	Pur	No	P	A-H	Y	16	CP	AC	Car	E6K2	1½	S-DD	No	No	No	Au	Yes	Bur	2	NS	21
22	Dodge D-5	P	Y	Y	N	Y	....	Po	G	30	20W	40–20	42½	5	Mot	Bay	Pur	No	P	A-H	Y	16	CP	....	Str	EXV-2	1¼	S-DD	No	No	No	Au	Yes	AC	2	NS	22
23	Duesenberg 8	P	Y	Y	Y	Y	....	Po	G	60	50	30–25	.....	12	Mot	Fl	Pur	No	Cen	Bij	Y	26	CP	SW	Str	(a)	1½	D-DD	No	No	No	Au	No	AC	4¾	Own	23
24	Ford V8-60	P	Y	Y	Y	Y	....	Po	....	30	10W	*	30	4	.....	Bay	No	No	P	.....	Y	14	MP	....	Str	EE-1	.81	D-DD	No	No	No	.....	.....	.....	.....	.....	.....	24
25	Ford V8-85	....	Y	Y	Y	Y	....	Po	G	30	10W	*	30	5	.....	Bay	No	No	P	.....	Y	14	MP	....	Str	EE-1	.97	D-DD	No	No	No	.....	.....	.....	1.88	.....	25
26	Graham Crusader 85	P	Y	Y	N	Y	....	Po	G	30	20W	40–30	50	5	.....	Bay	.....	Own	P	A-H	Y	12	CP	AC	Mar	B2-SU	1¼	S-DD	No	No	No	Au	.....	Bur	1⅝	Old	26
27	Graham Cavalier 95	P	Y	Y	N	Y	....	Po	G	30	20W	40–30	50	5	Own	Bay	.....	Own	P	A-H	Y	15	CP	AC	Mar	B-2	1¼	S-DD	No	No	No	Au	.....	Bur	2	Old	27
28	Graham Supercharger 116	P	Y	Y	N	Y	....	Po	G	30	20W	40–30	50	5	.....	Bay	Fram	.....	P	A-H	Y	15	CP	AC	Mar	B-2	1½	S-DD	Own	Cen	Belt-2	Au	.....	Bur	2	Old	28
29	Graham Supercharger 120	P	Y	Y	N	Y	....	Po	G	40	20W	40–30	50	5	.....	Bay	Fram	Own	P	A-H	Y	15	CP	AC	Mar	B-3	1½	S-DD	Own	Cen	Belt-2	Au	.....	Bur	2	Old	29
30	Hudson 73	Sp	N	N	N	N	N	Sp	OP	30	10W	3–ND	3	5	None	No	None	Own	P	A-H	Y	16½	CP	AC	Car	344-S	1	D-DD	No	No	No	Au	Car	AC	2	Old	30
31	Hudson 74-5-6-7	Sp	N	N	N	N	N	Sp	OP	30	10W	3–ND	3	7	None	No	None	Own	P	A-H	Y	16½	CP	AC	Car	344-S	1	D-DD	No	No	No	Au	Car	AC	2	Old	31
32	La Salle V-8, 37-50	P	Y	Y	Y	Y	....	Po	G	30	20W	30–60	30	7	AC	Bay	Han	No	P	Ln	Y	22	CP	AC	Str	AA-25	1¼	D-DD	No	No	No	No	Str	AC	2¼	Old	32
33	Lincoln-Zephyr	....	P	Y	Y	N	Y	....	Po	G	40	10W	30–55	30	6	.....	Fl	No	No	P	A-H	....	19	MP	AC	Str	EE-1	1½	D-DD	No	No	No	.....	.....	Bur	.....	Own	33
34	Lincoln V12	P	Y	Y	N	Y	....	Po	G	40	20W	40–50	40	12	.....	Fl	Pur	No	P	A-H	....	26	CP	AC	Str	EE-22	1¼	D-DD	No	No	No	.....	.....	Yes	2⅜	Own	34
35	Nash Lafayette 400-3710	P	Y	Y	Y	Y	....	Po	G	30	20	30–20	30	6	.....	Bay	No	No	P	A-H	Y	20	CP	AC	Str	EX-22	1¼	S-DD	No	No	No	Au	No	Bur	2	Wal	35
36	Nash Ambassador 6-3720	P	Y	Y	Y	Y	Y	Po	G	30	20	30–20	30	7	.....	Bay	B&S	No	P	A-H	Y	20	CP	AC	Str	EX-2	1½	S-DD	No	No	No	Au	No	AC	2	Wal	36
37	Nash Ambassador 8-3780	P	Y	Y	Y	Y	Y	Po	G	30	20	30–20	30	7	.....	Fl	B&S	No	P	A-H	Y	20	CP	AC	Str	EE-7	1	D-DD	No	No	No	Au	No	Bur	2¼	Wal	37
38	Oldsmobile F-37	P	Y	Y	Y	Y	....	Po	G	....	.....	27–	27	6	AC	Bay	No	No	P	.....	Y	18	CP	AC	Car	351-S	1¼	S-DD	No	No	No	Au	Car	AC	2	Var	38
39	Oldsmobile L-37	P	Y	Y	Y	Y	....	Po	G	....	.....	27–	27	7	AC	Bay	No	No	P	.....	Y	18	CP	AC	Car	345-S	.....	D-DD	No	No	No	Au	Car	AC	.....	Var	39
40	Packard Six	P	Y	Y	Y	Y	....	Y	G	30	20W	35–30	.....	7	.....	Bay	None	No	P	.....	Y	17	CP	AC	CG	.....	1¼	S-DD	No	No	No	Au	Yes	ACO	2	.....	40
41	Packard 120-C	P	Y	Y	Y	Y	....	Y	G	30	20W	35–30	.....	7	.....	Bay	None	No	P	.....	Y	20	CP	AC	Str°	EE-14	1	D-DD	No	No	No	Au	Yes	ACO	2¼	.....	41
42	Packard Super Eight	P	Y	Y	Y	Y	Y	Y	G	30	20W	35–30	.....	8	.....	Bay	Pur	Yes	P	.....	Y	25	CP	AC	Str	EE-23	1¼	D-DD	No	No	No	Au	Yes	ACO	2¼	.....	42
43	Packard Twelve	P	Y	Y	Y	Y	....	Y	G	30	20W	50–ND	.....	10	.....	Bay	Pur	Yes	.....	.....	Y	30	CP	AC	Str	EE-3	1½	D-DD	No	No	No	Au	Yes	AC	2⅜	.....	43
44	Pierce-Arrow 1701	P	Y	Y	Y	Y	....	Po	G	30	20W	45–40	.....	10	Mot	Bay	Pur	Har	P	A-H	Y	30	CP	AC	Str	EE-3	1½	D-DD	No	No	No	Au	BS	AC	2⅜	Buf	44
45	Pierce-Arrow 1702	P	Y	Y	Y	Y	....	Po	G	30	20W	45–53	50	13	Mot	Bay	Pur	Har	P	A-H	Y	30	CP	AC	Str	EX-3	1½	2-SD	No	No	No	Au	BS	AC	2⅜	Buf	45
46	Pierce-Arrow 1703	P	Y	Y	Y	Y	....	Po	G	30	20W	45–53	50	13	Mot	Bay	Pur	Har	P	A-H	Y	30	CP	AC	Str	EX-3	1½	2-SD	No	No	No	Au	BS	AC	2⅜	Buf	46
47	Plymouth P-3	P	Y	Y	N	Y	....	Po	G	30	20W	40–20	42½	5	Mot	Bay	Yes†	No	P	A-H	Y	16	CP	AC	Car	C6F2	1¼	S-DD	No	No	No	Au	No	BA	1¾	NS	47
48	Plymouth P-4	P	Y	Y	N	Y	....	Po	G	30	20W	40–20	42½	5	Mot	Bay	Pur	No	P	A-H	Y	16	CP	AC	Car	C6F2	1¼	S-DD	No	No	No	Au	No	BA	1¾	NS	48
49	Pontiac De Luxe Six 37-26 CA	P	Y	Y	Y	Y	....	Po	G	30	20	35–40	.....	6	AC	Bay	No	No	P	.....	Y	18	CP	AC	Car	352-S	1¼	S-DD	No	No	No	Th	Car	AC	2	B-O	49
50	Pontiac De Luxe Eight 37-28 CA	P	Y	Y	Y	Y	....	Po	G	30	20	35–40	.....	7	AC	Bay	No	No	P	.....	Y	17	CP	AC	Car	350-S	1¼	S-DD	No	No	No	Th	Car	AC	2	B-O	50
51	Studebaker Dict. & Dict. Pl. 6	P	Y	Y	N	Y	....	Po	SG	30	20	40–25	40	5½	Mot	Bay	Fram	No	P	Al	Y	18	CP	AC	Str	EX-23	1¼	S-DD	No	No	No	Au	Str	AC	2	Buf	51
52	Studebaker President	P	Y	Y	N	Y	....	Po	SG	30	20	40–25	40	8	Mot	Bay	Fram	No	P	Al	Y	18	CP	AC	Str	EE-1	1	D-DD	No	No	No	Au	Str	Bur	1¾	Bur	52
53	Terraplane 71	Sp	N	N	N	N	....	Sp	OP	30	10W	3–ND	3	5	None	No	No	No	P	A-H	Y	16.5	CP	AC	Car	348-S	1¼	S-DD	No	No	No	Au	Car	AC	2	Old	53
54	Terraplane 72	Sp	N	N	N	N	....	Sp	OP	30	10W	3–ND	3	5	None	No	No	No	P	A-H	Y	16.5	CP	AC	Car	344-S	1	S-DD	No	No	No	Au	Car	AC	2	Old	54
55	Willys 37	P	Y	Y	N	Y	....	Po	G	30	20W	30–30	30	4	KS	Bay	No	No	P	A-H	Y	8.0	CP	AC	Til	U-1-A	1⅛	S-DD	No	No	No	Man	No	AC	1⅝	Buf	55

*—85-30-2600, 60-30-3200
‡—Maximum †—At extra cost
2—Two Used °—Others also
(a)—Stromberg UU-3 or EE-3
ACO—AC-Oil Bath Type
A-H—Alemite Hydraulic
Al—Alemite Au—Automatic
(b)—Also Marvel BD1

BA—Burgess or AC
Bay—Bayonet
BB—Ball & Ball
Bij—Bijur
B-O—Buffalo or Oldberg
B&S—Briggs & Stratton
BS—Bendix Stromberg
Buf—Buffalo

Bur—Burgess
(c)—Also Marvel BD1S
Car—Carter
Cen—Central
CG—Chandler Groves
CP—Camshaft Pump
D-DD—Dual or Duplex Downdraft
DL—Detroit Lubricator DR—Delco Remy

Fl—Float Type G—Gear
G-Pf—Gear—Planetary friction Type
Han—Handy
Har—Harrison Radiator Co.
KS—King Seeley
Ln—Lincoln Mar—Marvel
Man—Manual MP—Mechanical Pump
Mot—Motometer Gauge & Equip. Co.

N—No ND—Normal Driving
NS—Noblitt Sparks
Old—Oldberg
OP—Oscillating Plunger
P—Pressure
Pi—Pines Winterfront Co.
Po—Positive
Pur—Purolator

2-SD—Single Downdraft—2 used
S-DD—Single Downdraft
SG—Splash Gear Sp—Splash
Str—Stromberg SU—Single Updraft
SW—Stewart Warner
Th—Thermostat Til—Tillotson
Var—Various Wal—Walker
Y—Yes

COOLING AND IGNITION SYSTEMS

Line Number	CAR MAKE AND MODEL	Circulation Type	WATER PUMP: Type	WATER PUMP: Drive	Thermostat—Make	By-pass for Recirculation	RADIATOR: Shutters: Make	RADIATOR: Shutters: Control	RADIATOR: Core: Type	RADIATOR: Core: Make	RADIATOR: Lower Hose (Ins.): Inside Diameter	RADIATOR: Lower Hose (Ins.): Length	RADIATOR: Upper Hose (Ins.): Inside Diameter	RADIATOR: Upper Hose (Ins.): Length	Cooling System Capacity (Quarts)	Full Length Waterjackets	FAN BELT: Number Used	FAN BELT: Type	FAN BELT: Length—Outside (Ins.)	FAN BELT: Width (Ins.)	FAN BELT: Make	Make of Fan	IGNITION UNIT: Make	IGNITION UNIT: MODEL	IGNITION UNIT: Degrees Advanced: Manual	IGNITION UNIT: Degrees Advanced: Automatic	IGNITION UNIT: Degrees Advanced: Vacuum	IGNITION UNIT: Timing: Breaker Gap	IGNITION UNIT: Timing: Spark Occurs ° TC	IGNITION UNIT: Timing: Firing Order	COIL: Amperage Draw.: Make	COIL: Amperage Draw.: Engine Stopped	COIL: Amperage Draw.: Engine Idling	Ignition Switch Make	SPARK PLUG: Make	SPARK PLUG: Model	SPARK PLUG: Thread	SPARK PLUG: Gap	Line Number
1	Auburn 654	CP	Ce	FB	Yes	....	No	No	Ce	.....	1½	11¾	1½	7½	16	....	1	V-	.....	¾	Ga	.....	AL	IGB-4318	No	10	....	.018	3B	1-5-3-6-2-4	AL	5.0	3.0	Oak	Cha	J-6	14	.025	1
2	Auburn 852	CP	Ce	FB	Yes	....	No	No	Ce	.....	1½	11¾	1½	7½	20	....	1	V-	.....	¾	Ga	.....	AL	IGP-4002	No	10	....	.018	3B	1-6-2-5-8-3-7-4	AL	5.0	3.0	Oak	Cha	J-6	14	.025	2
3	Auburn SC-852	CP	Ce	FB	Yes	....	No	No	Ce	.....	1½	11¾	1½	7½	20	....	1	V-	.....	¾	Ga	.....	AL	IGH-4027	No	11	....	.013	....	1-6-2-5-8-3-7-4	AL	5.0	3.0	Oak	Cha	J-9-B	14	.025	3
4	Buick 36-40	CP	Ce	FB	Har	Yes	No	No	Cel	Har	1	....	1	7⅝	13¼	No	1	V-45	42	I	G-D	HI	DR	663-Y	20	24	12	.015	2B	1-6-2-5-8-3-7-4	DR	4.5	2.5	Oak	AC	H-9	18	.024	4
5	Buick 36-60	CP	Ce	FB	Har	Yes	No	No	Cel	Har	1	....	1	5¼	17	No	1	V-45	45	I	Gyr	HI	DR	663-Z	20	14	12	.015	10B	1-6-2-5-8-3-7-4	DR	4.5	2.5	Oak	AC	H-9	18	.024	5
6	Buick 36-80	CP	Ce	FB	Har	Yes	No	No	Cel	Har	1	....	1	5¼	17	No	1	V-45	45	I	Gyr	HI	DR	663-Z	20	14	12	.015	10B	1-6-2-5-8-3-7-4	DR	4.5	2.5	Oak	AC	H-9	18	.024	6
7	Buick 36-90	CP	Ce	FB	Har	Yes	No	No	Cel	Har	1	....	1	5¼	17	No	1	V-45	45	I	Gyr	HI	DR	663-Z	20	14	12	.015	10B	1-6-2-5-8-3-7-4	DR	4.5	2.5	Oak	AC	H-9	18	.024	7
8	Cadillac V8-60	CP	Ce	GB	No	No	Own	Th	Cel	Har	2	7	1¼	2-10¾	25	....	1	V-34	111	C	Gyr	AFB	DR	665-G	20	22	No	.015	5B	1-8-7-3-6-5-4-2	DR	4.4	2.2	DR	AC	K-7	14	.026	8
9	Cadillac V8-85	CP	Ce	GB	No	No	Own	Th	Cel	Har	2	7	1¼	2-10¾	25	....	1	V-34	111	C	Gyr	AFB	DR	665-G	20	22	No	.015	5B	1-8-7-3-6-5-4-2	DR	4.4	2.2	DR	AC	K-7	14	.026	9
10	Cadillac V8-70	CP	Ce	GB	No	No	Own	Th	Cel	Har	2	7	1¼	2-10¾	25	....	1	V-34	111	C	Gyr	AFB	DR	665-G	20	22	No	.015	5B	1-8-7-3-6-5-4-2	DR	4.4	2.2	DR	AC	K-7	14	.026	10
11	Cadillac V8-75	CP	Ce	GB	No	No	Own	Th	Cel	Har	2	7	1¼	2-10¾	25	....	1	V-34	111	C	Gyr	AFB	DR	665-G	20	22	No	.015	5B	1-8-7-3-6-5-4-2	DR	4.4	2.2	DR	AC	K-7	14	.026	11
12	Cadillac V12-85	CP	Ce	Ch	No	No	Own	Th	Cel	Har	1¾	2-4	1¼	2-7⅝	17	....	1	....	13¾	C	....	AFB	DR	667-C	20	38	No	.021	10B	(d)	DR	4.4	2.2	DR	AC	G-7	18	.026	12
13	Cadillac V16-90	CP	Ce	Ch	No	No	Own	Th	Cel	Har	1¾	2-4	1¼	9½	24	....	1	....	14C	....	....	AFB	DR	4118	20	34	No	.016	4B	(e)	DR	4.4	2.2	DR	AC	G-8	18	.026	13
14	Chevrolet Master	CP	Ce	B	Har	No	No	No	Cel	Har	1½	2¾	1¼	6¼	14	Yes	1	V-32	42	7/8	Var	Own	DR	649-G	No	46	17	.021	5B	1-5-3-6-2-4	DR	4.8	2.5	DR	AC	K-11	14	.040	14
15	Chevrolet Master De Luxe	CP	Ce	B	Har	No	No	No	Cel	Har	1½	2¾	1¼	6¼	15	Yes	1	V-32	42	7/8	Var	Own	DR	649-G	No	46	17	.021	5B	1-5-3-6-2-4	DR	4.8	2.5	DR	AC	K-11	14	.040	15
16	Chrysler Royal C-16	CP	Ce	FB	Ful	Yes	No	No	Cel	Ja	.....	.....	.....	.....	20	Yes	1	V-	.....	¾	Var	.....	AL	IGS-4010-1	No	24	22	.020	2A	1-5-3-6-2-4	.....	.....	.....	.....	YT	Cha	J-8	14	.025	16
17	Chrysler Imperial C-14	CP	Ce	FB	Ful	Yes	No	No	Tu	Long	.....	.....	.....	.....	22	....	1	V-	.....	¾	Var	.....	AL	IGT-4001-F1	No	22	16	.018	3A	1-6-2-5-8-3-7-4	.....	.....	.....	.....	YT	Cha	H-10	14	.025	17
18	Chrysler Custom Imperial C-15	CP	Ce	FB	Ful	Yes	No	No	Tu	Long	.....	.....	.....	.....	21	....	1	V-	.....	¾	Var	.....	AL	IGT-4001-F1	No	22	14	.018	5A	1-6-2-5-8-3-7-4	.....	.....	.....	.....	YT	Cha	H-10	14	.025	18
19	Chrysler Airflow C-17	CP	Ce	FB	Ful	Yes	No	No	Tu	Long	.....	.....	.....	.....	17	....	1	V-	.....	¾	Var	.....	AL	IGT-4001-J1	No	22	14	.018	5A	1-6-2-5-8-3-7-4	.....	.....	.....	.....	YT	Cha	H-10	14	.025	19
20	Cord Front Drive 812	CP	Ce	FB	B&B	No	No	No	Cel	Ja	1½	3	2	11	28	No	1	V-	33¾	¾	Ga	SC	AL	IGP-4006	No	20	No	.015	3B	(f)	AL	5.0	3.7	Mit	Cha	J-9-B	14	.025	20
21	De Soto S-3	CP	Ce	FB	Ful	Yes	No	No	Cel	Ja	1½	8¾	1¾	6¼	20	Yes	1	V-	.....	¾	Var	.....	AL	IGS-4010-1	No	24	22	.020	2A	1-5-3-6-2-4	.....	.....	.....	.....	YT	Cha	J-8	14	.025	21
22	Dodge D-5	CP	Ce	FB	Ful	Yes	No	No	Cel	Fed	1½	8¾	1¾	6¼	16	Yes	1	V-	.....	¾	Var	.....	AL	IGS-4002-A1	No	24	18	.020	4A	1-5-3-6-2-4	.....	.....	.....	.....	YT	Cha	J-8	14	.025	22
23	Duesenberg 8	CP	Ce	GS	.....	.....	Pi	...	Cel	Win	1¾	2⅝	1½	10¾	32	....	1	V-	38½	¾	Gr	SC	DR	4094	20	42	No	.018	6A	1-6-2-5-8-3-7-4	.....	.....	.....	.....	DR	Cha	.....	18	.025	23
24	Ford V8-60	CP	Ce	FB	.....	.....	No	No	Tu	Own	1.50	7.62	1.50	19	15¼	Yes	...	V-	45.8	.63	.....	Own	Own	.....	No	20	.....	.015	4B	1-5-4-8-6-3-7-2	Own	.....	.....	.....	.....	Cha	H-10	14	.025	24
25	Ford V8-85	CP	Ce	FB	.....	.....	No	No	Tu	Own	1.75	4.75	1.75	17	22	Yes	...	V-	51.2	.63	.....	Own	Own	.....	No	20	.....	.015	4B	1-5-4-8-6-3-7-2	Own	.....	.....	.....	.....	Cha	7	18	.025	25
26	Graham Crusader 85	CP	Ce	FB	Ful	No	No	No	Cel	Har	1½	3	1½	8	11	Yes	1	V-38	40	11/16	Gr	SC	DR	623-A	.....	.....	10	.018	2B	1-5-3-6-2-4	DR	.....	.....	.....	.....	Cha	.....	18	.025	26
27	Graham Cavalier 95	CP	Ce	FB	Ful	No	No	No	Cel	Har	1½	3	1½	8	15	Yes	1	V-38	43.3	11/16	Gr	SC	DR	623-A	.....	.....	10	.018	TC	1-5-3-6-2-4	DR	.....	.....	.....	.....	Cha	J-9	14	.025	27
28	Graham Supercharger 116	CP	Ce	FB	Ful	No	No	No	Cel	Har	1½	3	1½	8	15	Yes	1	V-38	44.0	11/16	Gr	SC	DR	623-S	.....	.....	10	.018	4A	1-5-3-6-2-4	DR	5	2.5	.....	Cha	J-9	14	.025	28
29	Graham Supercharger 120	CP	Ce	FB	Ful	No	No	No	Cel	Har	1½	3	1½	8	15	Yes	1	V-38	44.0	11/16	Gr	SC	DR	623-S	.....	.....	10	.018	4A	1-5-3-6-2-4	DR	5	2.5	.....	Cha	J-9	14	.025	29
30	Hudson 73	CP	Ce	FB	B&B	Yes	No	No	Cel	McC	1.56	3	1.5	10	20	No	1	V-42	44.37	.781	Gr	Own	AL	IGW-4013-A	No	28	No	.020	TC	1-5-3-6-2-4	AL	4.5	2.5	Mit	Cha	J-8	14	.022	30
31	Hudson 74-5-6-7	CP	Ce	FB	B&B	Yes	No	No	Cel	McC	1.56	3	1.5	10	20	No	1	V-42	44.37	.781	Gr	Own	AL	IGP-4008-A	No	35	No	.020	TC	1-6-2-5-8-3-7-4	AL	4.5	2.5	Mit	Cha	J-8	14	.022	31
32	La Salle V8, 37-50	CP	Ce	GB	No	No	Own	Th	Cel	Har	2	7	1¼	2-10¾	25	....	1	V-34	111	C	Gyr	AFB	DR	665-G	20	22	No	.015	5B	1-8-7-3-6-5-4-2	DR	4.4	2.2	DR	AC	K-7	14	.026	32
33	Lincoln-Zephyr	CP	VC	GB	Do	....	No	No	Tu	McC	1¾	7½	1¾	7½	27	Yes	1	V-28	54.4	.63	Var	.....	.....	.....	No	20	No	.015	.....	(m)	.....	4.2	3.2	.....	Cha	J-9	14	.029	33
34	Lincoln V12	CP	VC	GS	.....	.....	No	No	Tu	.....	.....	.....	1¼	8¼	32	....	1	V-45	40.75	1.00	Var	.....	AL	.....	No	17	No	.020	.....	(m)	.....	5.0	1.5	.....	Cha	7	18	.025	34
35	Nash Lafayette 400-3710	CP	Ce	GS	Yes	No	No	No	Tu	.....	.....	.....	.....	.....	20	Yes	1	V-32	.....	.....	.....	.....	AL	IGW-4010	No	24	No	.022	10Bm	1-5-3-6-2-4	AL	4.0	2.5	.....	AC	G-8	18	.025	35
36	Nash Ambassador 6-3720	CP	Ce	GS	Yes	No	No	No	Tu	.....	.....	.....	.....	.....	17	Yes	1	V-32	.....	.....	.....	.....	AL	IGE-4012-B	No	18	No	.022	15Bm	1-5-3-6-2-4	AL	...	6.0	.....	AC	K-12	14	.022	36
37	Nash Ambassador 8-3780	CP	Ce	GS	Yes	No	No	No	Tu	.....	.....	.....	.....	.....	18	Yes	1	V-32	.....	.....	.....	.....	AL	IGK-4101	No	30	No	.020	15Bm	1-6-2-5-8-3-7-4	AL	4.0	2.5	.....	AC	K-12	14	.022	37
38	Oldsmobile F-37	CP	Ce	FB	Har	Yes	No	No	Cel	Har	1½	11	1½	8¾	16	Yes	1	V-32	44	11/16	Var	Own	DR	739-G	No	25	34	.020	TC	1-5-3-6-2-4	DR	4.5	2.0	DR	AC	K-9	14	.040	38
39	Oldsmobile L-37	CP	Ce	FB	Har	Yes	No	No	Cel	Har	1¾	11	1½	8¾	20	Yes	1	V-32	44	11/16	Var	Own	DR	729-J	No	27½	33	.015	2B	1-6-2-5-8-3-7-4	DR	4.5	2.0	DR	AC	K-9	14	.030	39
40	Packard Six 115-C	CP	Ce	FB	.....	.....	No	No	Cel	McC	1½	3	1½	10	17	....	1	V-42	43	¾	.....	.....	AL	647-E	No	10	7½	.015	4B	1-5-3-6-2-4	DR	2½	½	.....	CA	Y-4*	10	.029	40
41	Packard 120-C	CP	Ce	FB	.....	.....	No	No	Cel	Har	1½	3	1½	10	20	....	1	V-42	43	¾	.....	.....	AL	IGT-4004	No	10	7½	.015	7B	1-6-2-5-8-3-7-4	AL	2½	½	.....	CA	Y-4*	10	.029	41
42	Packard Super Eight	CP	Ce	FB	.....	.....	Yes	Th	Tu	McC	1¾	5⅝	1½	6½	24	....	1	V-42	47½	1	.....	.....	DR	663-L	No	9	5½	.015	6B	1-6-2-5-8-3-7-4	DR	2½	½	.....	CA	Y-4*	10	.029	42
43	Packard Twelve	CP	Ce	FB	.....	.....	Yes	Th	Tu	McC	2	11	1½	.....	40	....	1	V-45	49	25/32	.....	.....	AL	IGO-4002-A	.....	.....	.....	.020	6B	(b)	2-AL	2½	½	.....	CA	Y-4*	10	.029	43
44	Pierce-Arrow 1701	CP	Ce	....	No	No	Pi	Au	Tu	Long	2¼	3¼	1½	14	25	Yes	2	V-45	52	5/8	Fir	SC	DR	662-J	33	16	No	.018	5A	1-6-2-5-8-3-7-4	DR	2	4	DR	Cha	U-6	14	.023	44
45	Pierce-Arrow 1702	CP	Ce	....	No	No	Pi	Au	Tu	Long	2¼	18¾	1½	(g)	38	Yes	2	V-45	57½	5/8	Fir	SC	DR	4105	33	12	No	.018	5B	(h)	DR	2	4	DR	AC	(k)	14	.023	45
46	Pierce-Arrow 1703	CP	Ce	....	No	No	Pi	Au	Tu	Long	2¼	18¾	1½	(g)	38	Yes	2	V-45	57½	5/8	Fir	SC	DR	4105	33	12	No	.018	5B	(h)	DR	2	4	DR	AC	(k)	14	.023	46
47	Plymouth P-3	CP	Ce	FB	Ful	No	No	No	Cel	Fe-Ja	1½	8¾	1¾	6¼	15	Yes	1	V-	.....	¾	Var	.....	AL	IGS-4003-B1	No	22	22	.020	.....	1-5-3-6-2-4	.....	.....	.....	.....	YT	Cha	J-8	14	.025	47
48	Plymouth P-4	CP	Ce	FB	B&B	Yes	No	No	Cel	Fe-Ja	1½	8¾	1¾	6¼	15	Yes	1	V-	.....	¾	Var	.....	AL	IGS-4003-B1	No	22	22	.020	.....	1-5-3-6-2-4	.....	.....	.....	.....	YT	Cha	J-8	14	.025	48
49	Pontiac De Luxe Six 37-26	CA	CP	Ce	FB	Har	Yes	No	No	Cel	Har	1½	9½	1¾	9¾	16	Yes	1	V-28	46	13/16	¾	Own	Own	DR	647-D	20	22	15	.018	4B	1-5-3-6-2-4	DR	.....	.....	.....	DR	AC	K-7	14	.025	49
50	Pontiac De L. Eight 37-28	CA	CP	Ce	FB	Har	Yes	No	No	Cel	Har	1½	9½	1¾	9¾	19	Yes	1	V-28	46	13/16	¾	Own	Own	DR	663-X	20	22	20	.018	4B	1-6-2-5-8-7-3-4	DR	.....	.....	.....	DR	AC	K-7	14	.025	50
51	Studebaker Dict. & Dict. Pl. 6	CP	Ce	FB	Ful	Yes	No	No	Tu	McC	2	5¾	1¼	8½	13	....	1	V-38	44½	7/8	Var	SC	AL	IGW-4001	No	21	12	.020	2B	1-5-3-6-2-4	AL	4-5	½-1½	AL	Cha	8	18	.025	51
52	Studebaker President	CP	Ce	FB	B&B	Yes	No	No	Tu	Long	1¾	3	2⅛	10¾	15½	Yes	1	V-38	49¼	7/8	Var	SC	DR	662-M	No	27	12	.020	TC	1-6-2-5-8-3-7-4	DR	4-5	½-1½	DR	Cha	8	18	.025	52
53	Terraplane 71	CP	Ce	FB	None	No	No	No	Cel	McC	1.62	8.5	1.5	10	12½	No	1	V-42	44.37	.781	Gr	Own	AL	IGW-4012A	No	28	No	.020	TC	1-5-3-6-2-4	AL	4.5	2.5	Mit	Cha	J-8	14	.022	53
54	Terraplane 72	CP	Ce	FB	B&B	Yes	No	No	Cel	McC	1.62	8.5	1.5	10	20	No	1	V-42	44.37	.781	Gr	Own	AL	IGW-4012A	No	28	No	.020	TC	1-5-3-6-2-4	AL	4.5	2.5	Mit	Cha	J-8	14	.022	54
55	Willys 37	CP	Ce	FB	No	No	No	No	Cel	Ja	1⅛	(c)	1½	10¾	11	No	1	V-42	42	21/32	The	Own	AL	IGS-4007	No	25	23	.018	4A	1-3-4-2	AL	4.0	2.5	HAD	Var	....	18	.025	55

*—AC Numbers Given
2—Two Used
(a)—One 13 long, one 14 long
A—After Top Dead Center
AL—Auto-Lite
AFB—Automotive Fan and Bearing Co.
Au—Automatic
(b)—1R, 6L, 5R, 2L, 3R, 4L, 6R, 1L, 2R, 5L, 4R, 3L
B—Before Dead Center
B&B—Bishop & Babcock
Bel—Belden
Bm—Before Marks
3BR—Third Brush
(c)—One 5⅛ Long, One 2½ Long
C—Center to Center
CA—Champion or AC
Ce—Centrifugal Cel—Cellular
Ch—Chain Cha—Champion
CP—Circulating Pump
(d)—1, 4, 9, 8, 5, 2, 11, 10, 3, 6, 7, 12
Do—Dole
DR—Delco-Remy

ABBREVIATIONS:

(e)—1, 8, 9, 14, 3, 6, 11, 2, 15, 10, 7, 4, 13, 12, 5, 16
(f)—1L, 3L, 4L, 2L, 2R, 1R, 3R, 4R
FB—Fan Belt
Fe-Ja—Fedders or Jamestown
Fed—Fedders
Fir—Firestone Ful—Fulton
(g)—One 10½ Long, One 9½ Long
Ga—Gates
GB—Generator Belt
G-D—Goodyear or Dayton
GM—General Motors
Gen—General Cable Co.
Gr—Goodrich
GS—Generator Shaft
Gyr—Goodyear
(h)—1, 4, 9, 8, 5, 2, 11, 10, 3, 6, 7, 12
HAD—H. A. Douglass Co.
Har—Harrison
HI—Hayes Industries
Ja—Jamestown
(k)—U-5 or U-9
(m)—1, 4, 9, 8, 5, 2, 11, 10, 3, 6, 7, 12
McC—McCord
McJa—McCord or Jamestown
Mit—Mitchell Specialty Co.
Oak—Oakes
Pack—Packard
Pi—Pines s—Inside
SC—Schwitzer Cummins
TC—Top Dead Center
Th—Thermostatic
The—Thermoid
TS—Thermo Syphon
Tu—Tube and Fin
V—Vee-Type Belt
VC—Vane Type Centrifugal
Var—Various Win—Winchester
Y T—Yale & Towne

STARTING MOTORS AND BATTERIES

Line Number	CAR MAKE AND MODEL	STARTING MOTOR																BATTERY						Line Number
		Make	Model	Cranking Speed	Lock Test: Amperage Draw	Lock Test: Volts	Lock Test: Torque (Ft. Lbs.)	No Load Test: Amperage Draw	No Load Test: Volts	No Load Test: R.P.M.	Drive—Type	Automatic Starter: Make	Automatic Starter: Type	Pinion Meshes	Flywheel: No. of Teeth	Flywheel: Face Width of Teeth	Flywheel: Teeth Integral	Flywheel: Ratio to Starter	Make	Capacity-Amp. Hrs. at 20 M.P.H.	Plates per Cell	Bench Charging Rate: Start	Bench Charging Rate: Finish	Terminal Grounded	
1	Auburn 654	AL	MAB-4032	155	555	3.0	12.0	55			Ben	Star	PB	F	110	7/8	Int	11.00	USL	90	15	12.0	4.5	P	1
2	Auburn 852	AL	MAB-4063	140	582	3.0	15.5	60			Ben	Star	PB	F	110	7/8	Int	11.00	USL	105	15	14.0	5.2	P	2
3	Auburn SC-852	AL	MAB-4063	140	582	3.0	15.5	60			Ben	Star	PB	F	110	7/8	Int	11.00	USL	105	15	14.0	5.2	P	3
4	Buick Special 37-40	DR	734-Z	135	575	3.40	12.0	65	5.0	5000	SG-OC	DR	SA	F	146	43/64	SR	16.22	Del	100	13	7.0†	7.0	N	4
5	Buick Century 37-60	DR	727-W	115	600	3.00	16.0	65	5.0	5000	SG-OC	DR	SA	F	156	43/64	SR	17.33	Del	120	15	8.0†	8.0	N	5
6	Buick Roadmaster 37-80	DR	727-W	115	600	3.00	16.0	65	5.0	5000	SG-OC	DR	SA	F	156	43/64	SR	17.33	Del	120	15	8.0†	8.0	N	6
7	Buick Limited 37-90	DR	727-W	115	600	3.00	16.0	65	5.0	5000	SG-OC	DR	SA	F	156	43/64	SR	17.33	Del	120	15	8.0†	8.0	N	7
8	Cadillac V8-60	DR	727-V-4p	.....	600	3.0	16.0	65	5.0	5500	SG	.....	PB	F	156	1/2	SR	17.00	Del	110	.....	10.0	8.0	P	8
9	Cadillac V8-65	DR	727-V-4p	.....	600	3.0	16.0	65	5.0	5500	SG	.....	PB	F	156	1/2	SR	17.00	Del	110	.....	10.0	8.0	P	9
10	Cadillac V8-70	DR	727-V-4p	.....	600	3.0	16.0	65	5.0	5500	SG	.....	PB	F	156	1/2	SR	17.00	Del	130	.....	10.0	8.0	P	10
11	Cadillac V8-75	DR	727-V-4p	.....	600	3.0	16.0	65	5.0	5500	SG	.....	PB	F	156	1/2	SR	17.00	Del	130	.....	10.0	8.0	P	11
12	Cadillac V12-85	DR	580-6p	.....	600	3.0	35.0	70	5.7	2200	SG	.....	PB	R	113	.622	SR	21.00	Del	160	.....	10.0	8.0	P	12
13	Cadillac V16-90	DR	580-6p	.....	600	3.0	35.0	70	5.7	2200	SG	.....	PB	R	113	.622	SR	21.00	Del	190	.....	10.0	8.0	P	13
14	Chevrolet Master	DR	739-A	65	525	3.2	14.0	125	5.4	2500	Ben	CD	Acc	F	139	1/2	SR	15.44	Del	100	17	6.0	5.0	N	14
15	Chevrolet Master De Luxe	DR	739-A	65	525	3.2	14.0	125	5.4	2500	Ben	CD	Acc	F	139	1/2	SR	15.44	Del	100	17	6.0	5.0	N	15
16	Chrysler Royal C-16	AL	MAW-4010	120	670	4.0	18.0	65	5.5	4900	MG	No	No	F	146	1/2	SR	16.22	Wil	105	15	.....	.....	P	16
17	Chrysler Imperial C-14	AL	MAX-4003	120	880	4.0	25.0	65	5.5	5300	MG	No	No	F	146	1/2	SR	16.22	Wil	119	15	.....	.....	P	17
18	Chrysler Custom Imperial C-15	AL	MAX-4003	120	880	4.0	25.0	65	5.5	5300	PB	No	No	F	146	11/16	SR	16.22	Wil	136	17	.....	.....	P	18
19	Chrysler Airflow C-17	AL	MAX-4015	120	680	4.0	25.0	65	5.5	5300	PB	No	No	F	146	11/16	SR	16.22	Wil	136	17	.....	.....	P	19
20	Cord Front Drive 812	AL	MAX-4021	130	880	4.0	25.0	65	5.5	5300	Ben	Ecl	Star	F	141	9/16	SR	15.66	USL	108	19	.....	.....	P	20
21	De Soto S-3	AL	MAW-4010	.....	.....	.....	.....	.....	.....	.....	MG	No	No	F	146	1/2	SR	16.22	Wil	105	15	.....	.....	P	21
22	Dodge D-5	AL	MAW-4010	.....	.....	.....	.....	.....	.....	.....	MG	No	No	F	146	1/2	SR	16.22	Wil	95	15	.....	.....	P	22
23	Duesenberg 8	DR	429	.....	500	3.0	19.0	70	5.0	3000	Ben	No	No	R	119	11/16	SR	11.90	Exi	143	.....	10.0	10.0	N	23
24	Ford V8-60	.....	.....	100	500	.....	14	.....	.....	.....	Ben	No	No	R	122	.375	SR	13.6	Own	100	17	8.0	5.0	P	24
25	Ford V8-85	.....	.....	100	500	.....	14	.....	.....	.....	Ben	No	No	R	112	.375	SR	11.20	Own	100	17	8.0	5.0	P	25
26	Graham Crusader 85	DR	738V	.....	475	3.6	12.0	65	5.0	5000	MG	No	No	F	130	1/2	SR	14.40	Wil	90	13	.....	.....	P	26
27	Graham Cavalier 95	DR	738T	.....	475	3.6	12.0	65	5.0	5000	MG	No	No	F	130	1/2	SR	14.40	Wil	90	13	.....	.....	P	27
28	Graham Supercharger 116	DR	738T	.....	475	3.6	12.0	65	5.0	5000	MG	No	No	F	130	1/2	SR	14.40	Wil	105	15	.....	.....	P	28
29	Graham Supercharger 120	DR	738T	.....	475	3.6	12.0	65	5.0	5000	MG	No	No	F	130	1/2	SR	14.40	Wil	105	15	.....	.....	P	29
30	Hudson 73	AL	MAB-4075	150	780	4.0	22.5	60	5.5	2250	Ben	No	No	R	134	.406	SR	14.90	Nat	105	17	.....	.....	P	30
31	Hudson 74-5-6-7	AL	MAB-4075	150	780	4.0	22.5	60	5.5	2250	Ben	No	No	R	134	.406	SR	14.90	Nat	125	19	.....	.....	P	31
32	La Salle V8-37-50	DR	727-V-4p	.....	600	3.0	16.0	65	5.0	5500	SG	DR	PB	F	156	1/2	SR	17.00	Del	110	.....	10.0	8.0	P	32
33	Lincoln-Zephyr	Own	.....	90	.....	.....	14.0	.....	.....	.....	Ben	No	No	R	112	.375	SR	11.20	Own	100	17	8.0	5.0	P	33
34	Lincoln V12	AL	MAO-4003B	110	975	4.0	48.0	44	5.5	2700	Ben	No	No	F	116	.625	SR	11.60	Exi	147	21	10.0	10.0	N	34
35	Nash Lafayette 400-3710	AL	MAB-4076	160	167	5.0	.....	50	6.0	.....	Ben	No	No	R	.....	.....	SR	10.40	USL	100	13	.....	.....	P	35
36	Nash Ambassador 6-3720	AL	MAB-4076	160	167	5.0	.....	50	6.0	.....	Ben	Yes	CC	R	.....	.....	SR	10.40	USL	100	13	.....	.....	P	36
37	Nash Ambassador 8-3780	AL	MAB-4054	160	167	5.0	.....	50	6.0	.....	Ben	Yes	CC	R	.....	.....	SR	11.30	USL	116	15	.....	.....	P	37
38	Oldsmobile F-37	DR	739-G	100	475	3.6	12.0	65	5.0	5000	MG	No	No	F	145	1/2	SR	16.11	Del	94	15	12.5	4.5	N	38
39	Oldsmobile L-37	DR	729-J	100	600	3.0	15.0	60	5.0	6000	MG	No	No	F	145	1/2	SR	16.11	Del	110	17	12.5	5.25	N	39
40	Packard Six	DR	739-F	.....	675	4.0	13	65	5.0	5000	Ben	No	No	F	140	.....	SR	15.50	Wil	94	15	.....	.....	P	40
41	Packard 120-C	AL	MAX-4006	.....	600	3.0	16	60	6.0	3750	Ben	No	No	F	140	.....	SR	15.50	P-D	114	17	.....	.....	P	41
42	Packard Super Eight	DR	729-H	.....	600	3.0	16	60	5.0	6000	Ben	Ben	PB	F	148	11/16	SR	16.40	P-D	150	21	.....	.....	P	42
43	Packard Twelve	DR	664	.....	610	2.9	26	70	5.0	3000	Ben	Ben	PB	F	118	11/16	SR	11.80	P-D	150	21	.....	.....	P	43
44	Pierce-Arrow 1701	Dyn	DI-1314	102	700	3.8	25	165	5.4	1600	Ben	Star	K	F	116	5/16	SR	11.60	Wil	140	17	.....	.....	P	44
45	Pierce-Arrow 1702	Dyn	DI-1314	102	700	3.8	25	165	5.4	1600	Ben	Star	K	F	116	5/16	SR	11.60	Wil	160	.....	.....	.....	P	45
46	Pierce-Arrow 1703	Dyn	DI-1314	102	700	3.8	25	165	5.4	1600	Ben	Star	K	F	116	5/16	SR	11.60	Wil	160	.....	.....	.....	P	46
47	Plymouth P-3	AL	MAW-4009	125	670	4.0	18	65	5.5	4900	MG	No	No	F	146	1/2	SR	16.22	Wil	90	13	.....	.....	P	47
48	Plymouth P-4	AL	MAW-4009	125	670	4.0	18	65	5.5	4900	MG	No	No	F	146	1/2	SR	16.22	Wil	90	13	.....	.....	P	48
49	Pontiac De Luxe Six	DR	729E	53	600	3.0	16.0	65	5.0	5500	MG	No	No	F	139	1/2	SR	15.44	Del	94	15	.....	.....	N	49
50	Pontiac De Luxe Eight	DR	727-S	53	600	3.0	15.0	65	5.0	5500	MG	DR	Sol	F	139	1/2	SR	15.44	Del	107	17	.....	.....	P	50
51	Studebaker Dict. & Dict. Pl. 6	AL	MAX-4028	110	640	3.2	16.0	60	5.6	5000	OC	No	No	F	130	1/2	SR	14.30	Wil	105	15	5¾	5¾	P	51
52	Studebaker President	DR	729-G	110	575	3.2	15.0	60	5.6	5000	OC	No	No	F	133	1/2	SR	14.78	Wil	105	15	5¾	5¾	P	52
53	Terraplane 71	AL	MAB-4075	150	780	4.0	22.5	60	5.5	2250	Ben	No	No	R	134	.406	SR	14.90	Nat	105	17	.....	.....	P	53
54	Terraplane 72	AL	MAB-4075	150	780	4.0	22.5	60	5.5	2250	Ben	No	No	R	134	.406	SR	14.90	Nat	105	17	.....	.....	P	54
55	Willys 37	AL	MZ-4049	216	540	4.0	12.25	70.0	5.5	4300	Ben	No	No	F	96	5/8	SR	9.6	USL	95	13	4½	4½	N	55

†—Or over
(a)—GCJ-4803A with Radio
4p—Four pole type
6p—Six pole type
Acc—Accelerator
AL—Auto-Lite
Ben—Bendix
CC—Coincidental with clutch
CD—Chevrolet and Delco Remy
DR—Delco-Remy
Del—Delco
Dyn—Owens-Dyneto
Ecl—Eclipse Machine Co.
Exi—Exide
F—Front
IL—Indicator Light
Int—Integral
K—Key Type
MG—Manual Gear
N—Negative
Nat—National
OC—Overrunning Clutch
P—Positive
PB—Push Button
P-D—Prest-O-Lite Hi-Level or Delco
R—Rear
SA—Solenoid—accelerator control
SG—Solenoid operated Gear
Sh—Shaft
Sol—Solenoid
SR—Steel Ring
Star—Startix
Wil—Willard

GENERATORS AND LIGHTS

Line Number	CAR MAKE AND MODEL	Make	Model	Driven by	Ventilated	Field Fuse Capacity (Amps.)	Thermostat Opening Temperature (° F.)	CUTOUT RELAY: CLOSES AT: Voltage	CUTOUT RELAY: CLOSES AT: Armature R.P.M. (Average)	CUTOUT RELAY: CLOSES AT: Car Speed, M.P.H.	CUTOUT RELAY: Opens at (Amps)	CHARGING CONTROL: Voltage	CHARGING CONTROL: Current	MAXIMUM CHARGING RATE: COLD: Amperes	COLD: Volts	COLD: Armature R.P.M.	HOT: Amperes	HOT: Volts	HOT: Armature R.P.M.	Car Speed, M.P.H.	Ammeter Make	LIGHTS: Tail & Dash in Series	LIGHTS: Headlight—Make	LIGHTS: Tail & Stop—Make	Horn—Make	Line Number
1	Auburn 654	AL	GAR-4603-3	B	Y	7.5	No	7.5	800	.....	½–2½	No	.....	20.0	8.0	2050	16.3	8.0	2250	.....	.....	.....	CR-BR	Race	DR	1
2	Auburn 852	AL	GAR-4603-3	B	Y	7.5	No	7.5	800	.....	½–2½	No	.....	20.0	8.0	2050	16.3	8.0	2250	.....	.....	.....	CR-BR	Race	.....	2
3	Auburn SC-852	AL	GAR-4603-3	B	Y	7.5	No	7.5	800	.....	½–2½	No	.....	20.0	8.0	2050	16.3	8.0	2250	.....	.....	.....	CR-BR	Race	.....	3
4	Auburn 37-40	DR	918-B	B	Y	No	No	6.7	800	8.10	3½	VR	.....	29.0	8.0	4000	26.5	8.0	4000	40.8	AC	No	Guide	Guide	DR	4
5	Buick 37-60	DR	918-A	B	Y	No	No	6.7	800	9.10	0–3½	VR	.....	29.0	8.0	4000	26.5	8.0	4000	46.5	AC	No	Guide	Guide	DR	5
6	Buick 37-80	DR	918-A	B	Y	No	No	6.7	800	8.80	0–3½	VR	.....	29.0	8.0	4000	26.5	8.0	4000	44.5	AC	No	Guide	Guide	DR	6
7	Buick 37-80	DR	918-A	B	Y	No	No	6.7	800	8.20	0–3½	VR	.....	29.0	8.0	4000	26.5	8.0	4000	41.9	AC	No	Guide	Guide	DR	7
8	Buick 37-90	DR	918-A	B	Y	No	No	6.7	.....	.....	0–3	VR	No	29.0	8.0	4000	28.0	8.0	4200	51	AC	No	Guide	Guide	DR	8
9	Cadillac V8-60	DR	918-C	B	Y	No	No	6.7	.....	.....	0–3	VR	No	29.0	8.0	4000	28.0	8.0	4200	51	AC	No	Guide	Guide	DR	9
10	Cadillac V8-65	DR	918-C	B	Y	No	No	6.7	.....	.....	0–3	VR	No	29.0	8.0	4000	28.0	8.0	4200	51	AC	No	Guide	Guide	DR	10
11	Cadillac V8-70	DR	961-K	B	Y	No	No	7.0	.....	.....	0–2	PL	No	26.0	8.0	1650	26.0	.....	1650	20†	AC	No	Guide	Guide	DR	11
12	Cadillac V8-75	DR	961-K	B	Y	No	No	7.0	.....	.....	0–2	PL	No	26.0	8.0	1650	26.0	.....	1650	20†	AC	No	Guide	Guide	DR	12
13	Cadillac V12-85	DR	933-M	Ch	Y	No	No	7.0	.....	.....	0–2	PL	No	26.0	8.0	1700	.....	.....	1650	20†	AC	No	Guide	Guide	DR	13
14	Cadillac V16-90	DR	933-M	Ch	Y	No	No	7.0	.....	.....	0–2	PL	No	26.0	8.0	1700	.....	.....	1700	20†	AC	No	Guide	Guide	DR	14
15	Chevrolet Master	DR	948-R	B	Y	No	No	7.2	800	8½	1½	No	No	19.5	8.2	2600	16.5	8.1	2800	30	AC	No	Guide	Guide	DR	15
16	Chevrolet Master De Luxe	DR	948-R	B	Y	No	No	7.2	800	8½	1½	No	No	19.5	8.2	2600	16.5	8.1	2800	30	AC	No	Guide	Guide	DR	16
17	Chrysler Royal C-16	AL	GBW-4803-A	B	Y	No	No	7.0	720	9.0	–2	VR	Yes	22.0	8.0	1500	22.0	8.0	1900	20†	Mot	No	.....	.....	.....	17
18	Chrysler Imperial C-14	AL	GCO-4801-C	B	Y	No	No	7.0	820	9.0	–2	VR	Yes	28.0	8.0	1700	28.0	8.0	1700	20†	Mot	No	CR-BR	CR-BR	.....	18
19	Chrysler Airflow C-17	AL	GCO-4801-C	B	Y	No	No	7.0	820	9.0	–2	VR	Yes	28.0	8.0	1700	28.0	8.0	1700	20†	Mot	No	CR-BR	CR-BR	.....	19
20	Chrysler Custom Imperial C-15	AL	GCO-4801-C	B	Y	No	No	7.0	820	9.0	–2	VR	Yes	28.0	8.0	1700	28.0	8.0	1700	20†	Mot	No	CR-BR	CR-BR	.....	20
21	Cord Front Drive 812	AL	GBR-4603-4	B	Y	5.0	No	6.8	800	9.7	½–2½	CR	.....	23.0	8.75	2300	20.0	8.75	2500	9.7	SW	No	CR-BR	CR-BR	AL	21
22	De Soto S-3	AL	GBW-4803-C	B	Y	No	No	7.0	720	8.0	–2	VR	Yes	22.0	8.0	1500	22.0	8.0	1900	20†	Mot	No	CR-BR	CR-BR	.....	22
23	De Soto D-5	AL	GBW-4803-A	B	Y	No	No	7.0	720	8.0	–2	VR	Yes	22.0	8.0	1500	22.0	8.0	1900	20†	Mot	No	CR-BR	CR-BR	.....	23
24	Dodge 8	DR	428	Sh	No	No	165	6.7	.....	.....	2½	No	No	19.0	8.3	1200	11.0	7.5	1450	.....	Mot	.....	.....	.....	.....	24
25	Duesenberg			B	Y			7.0	.....	10	3.0	No	No	.....	.....	.....	15.0	6.5	1650	.....	.....	.....	Own	Own	.....	25
26	Ford V8-60			B	Y			7.0	.....	10	3.0	No	No	.....	.....	.....	15.0	6.5	1650	.....	.....	.....	Own	Own	.....	26
27	Ford V8-85			B	Y			.....	.....	.....	.....	.....	.....	17.5	8.1	2000	14.0	7.8	2400	.....	.....	.....	Hall	.....	DR	27
28	Graham-Crusader 85	DR	937-Y	B	Y	6.0	.....	.....	.....	.....	.....	.....	CR	19.5	8.3	2400	16.5	8.1	2900	.....	.....	.....	Hall	.....	DR	28
29	Graham-Cavalier 95	DR	948-B	B	Y	6.0	.....	.....	.....	.....	.....	.....	CR	25.0	8.0	3500	22.0	8.0	3000	.....	.....	.....	Hall	.....	DR	29
30	Graham-Supercharger 116	DR	948-Z	B	Y	6.0	.....	6.7	.....	.....	0–3	.....	.....	25.0	8.0	3500	22.0	8.0	3000	.....	.....	.....	Hall	Hall	DR	30
31	Graham-Supercharger 120	DR	948-Z	B	Y	6.0	.....	6.7	.....	.....	0–3	VC	.....	25.0	8.0	2500	21.7	8.0	2700	29.5	IL	No	Hall	Hall	DR	31
32	Graham-Supercharger 73	AL	GCJ-4803-A	B	Y	.....	152.5	6.8	820H	7.2H	2.0	VR	.....	25.0	8.0	2500	21.7	8.0	2700	29.5	IL	No	Hall	Hall	DR	32
33	Hudson 74-5-6-7	AL	GCJ-4803-A	B	Y	.....	152.5	6.8	820H	7.2H	2.0	VR	.....	25.0	8.0	2500	21.7	8.0	4200	48.0	AC	No	Guide	Guide	DR	33
34	La Salle V8, 37-50	DR	918-C	B	Y	No	No	6.7	.....	.....	0–3	VR	.....	29.0	8.0	4000	26.5	8.0	1800	30.0	Own	No	Hall	Sig.	Spar	34
35	Lincoln-Zephyr	Own		B	Y		No	7.0	.....	10.0	3.0	3-BR	No	26.0	.....	1800	15.0	7.0	1800	30.0	Own	No	Hall	Sig.	Spar	35
36	Lincoln V-12	AL	GBC-4103	Ch	Y	7.5	No	6.7	460	10.0	3.0	3-BR	No	22.0	8.0	1300	16.0	8.0	1300	20†	US	No	Hall	Sig.	Spar	36
37	Nash Lafayette 400-3710	AL	GCM-4803-4	B	Y	7.5	No	7.2	775	9.0	1½–2½	No	No	18.0	8.0	2800	18.0	8.0	2800	24.0	Mot	No	CR-BR	CR-BR	.....	37
38	Nash Ambassador 6-3720	AL	GCM-4803-4	B	Y	7.5	No	7.5	775	9.0	1½–2½	.....	.....	18.0	8.0	2800	18.0	8.0	2800	24.0	Mot	No	CR-BR	CR-BR	.....	38
39	Nash Ambassador 8-3780	AL	GCD-4802	B	Y	7.5	No	7.2	850	9.0	1½–2½	VR	.....	18.0	8.0	1650	28.0	8.0	1800	24.0	Mot	No	CR-BR	CR-BR	.....	39
40	Oldsmobile F-37	DR	936-T	B	Y	6.0	No	8.0	838	9.8	0–2.0	VR	.....	24.0	8.6	3200	18.0	8.3	3400	36.0	AC	No	Guide	Guide	DR	40
41	Oldsmobile L-37	DR	936-T	B	Y	6.0	No	8.0	800	9.8	0–2.0	VR	.....	24.0	8.6	3200	18.0	8.3	3400	.....	AC	No	Guide	Guide	DR	41
42	Packard Six	DR	948-U	B	Y	.....	TR	7.0	710	.....	0–3	VR	.....	25.0	8.0	3000	20.0	8.0	3500	.....	.....	.....	Hall	Hall	S-K	42
43	Packard 120-C	AL	GCJ-4801-A	B	Y	No	TR	7.0	710	.....	0–1	VR	.....	25.0	8.0	.....	20.0	8.0	.....	.....	.....	.....	Hall	Hall	S-K	43
44	Packard Super Eight	DR	961-J	B	Y	.....	TR	7.0	800	.....	0–3	VR	.....	26.0	8.0	1650	26.0	8.0	.....	.....	.....	.....	Hall	Hall	S-K	44
45	Packard Twelve	DR	930-F	B	Y	.....	TR	7.0	700	.....	0–3	VR	.....	30.0	8.0	1450	30.0	8.0	.....	.....	.....	.....	Hall	Hall	S-K	45
46	Pierce-Arrow 1701	Dyn	CO-1309	B	Y	3.0	.....	.....	.....	9.0	.....	VR	.....	32.0	8.0	1800	28.0	8.0	2800	22½	Mot	No	Guide	Guide	DR	46
47	Pierce-Arrow 1702	Dyn	CO-1309	B	Y	3.0	.....	.....	.....	9.0	.....	VR	.....	32.0	8.0	1800	28.0	8.0	2800	22½	Mot	No	Guide	Guide	DR	47
48	Pierce-Arrow 1703	Dyn	CO-1309	B	Y	3.0	.....	.....	.....	9.0	.....	VR	.....	32.0	8.0	1800	28.0	8.0	2800	22½	Mot	No	Guide	Guide	DR	48
49	Plymouth P-3	AL	GBM-4604-CI	B	Y	No	No	7.0	820	9.0	–2	3-BR	No	18.0	8.3	2400	15.0	8.0	2400	25	Mot	No	.....	.....	.....	49
50	Plymouth P-4	AL	GBM-	B	Y	No	No	7.0	820	9.0	–2	VR	No	25.0	8.0	2400	21.5	7.8	2600	30	Mot	No	.....	.....	.....	50
51	Pontiac De Luxe Six 37-26 CA	DR	948-S	B	Y	No	No	6.7	830	10	3.0	VR	No	22.0	8.0	3000	18.0	8.0	3500	40.0	AC	No	Guide	Guide	DR	51
52	Pontiac De Luxe Eight 37-28 CA	DR	948-S	B	Y	No	No	6.7	830	10	3.0	VR	No	22.0	8.0	3000	18.0	8.0	3500	40.0	AC	No	Guide	Guide	DR	52
53	Studebaker Dict. & Dict. Pl. 6	AL	GBM-4607-A2	B	Y	5	No	6.4	750	7–8	1.0	No	No	19.0	6–8.5	2000	17.0	6–8.5	.....	20.6	Mot	.....	CR-BR	CR-BR	.....	53
54	Studebaker President	DR		B	Y			6.4	700	9¼	1.0	VR	No	21.0	6–8.5	2800	17.0	6–8.5	.....	37.0	Mot	.....	CR-BR	CR-BR	.....	54
55	Terraplane 71	AL	GCJ-4804-A (a)	B	Y	No	152.5	6.8	900	8	2.0	No	No	16.0	8.0	2200	12.4	8.0	2400	26.3	IL	No	Hall	Hall	DR	55
56	Terraplane 72	AL	GCJ-4803-A	B	Y	No	152.5	6.8	820	7.2	2.0	VR	No	25.0	8.0	2500	21.7	8.0	2700	29.5	IL	No	Hall	Hall	DR	56
57	Terraplane 37	AL	GAM-4504	B	No	No	No	7.25	995	12	½–2½	3-BR	.....	17.0	8.0	2400	12.5	8.0	2350	22.0	KS	.....	CR-BR	CR-BR	.....	57

ABBREVIATIONS:

†—and over
AL—Auto-Lite
B—Belt
BR—Brush
Ch—Chain
CR—Current Regulator
CR-BR—Corcoran-Brown
DR—Delco-Remy
Dyn—Owens-Dyneto
H—Hot
IL—Indicating Light only
KS—King Seeley
Mot—Motometer Gauge and Equipment Co.
PL—Peak Load Type
Sh—Shaft
Sig.—Signal Electric Co.
S-K—Sparton or Klaxon
Spar—Spartan
SW—Stewart-Warner
TR—Thermostatic Relay Used
US—U. S. Gauge Co.
VC—Voltage Control Unit
VR—Voltage Regulator
Y—Yes

CLUTCH AND REAR AXLE

Line Number	CAR MAKE AND MODEL	CLUTCH												REAR AXLE														Line Number
									FACINGS									LUBRICATION			GEARING							
		Make	Type Centrifugal or Semi-Centrifugal	Ventilated	Make—Power Unit	Vibration Insulation	No. of Driving Discs	No. of Driven Discs	Material	Inside Diam.	Outside Diam.	Thickness	No. Required	Make	Model	Type	Min. Road Clearance	Capacity (Pts.)	GRADE Summer	GRADE Winter	Type	Ratio (Std.) 5 pass., 4 d. Sedan	No. of Teeth Ring	No. of Teeth Pinion	Pinion Adjustment	Pinion Bearing Adjust.	Pinion Bearing in sleeve	Back Lash (Average)	
1	Auburn 654	Long	No	.....	No	Sp	2	1	Mo	5¾	9	.137	2	Col	.....	½	7½	4	165	165	SB	4.44	40	9	Scr	Scr	.....	.004	1
2	Auburn 852	Long	No	.....	No	Sp	2	1	Mo	5½	9¾	.137	2	Col	.....	½	7½	4	165	165	SB	4.08	49	12	Scr	Scr	.....	.004	2
3	Auburn SC-852	Long	No	.....	No	Sp	2	1	Mo	5½	9¾	.137	2	Col	.....	½	7½	4	165	165	SB	4.08	49	12	Scr	Scr	.....	.004	3
4	Buick 37-40	Long	No	Yes	No	Sp	2	1	Wo	6	10	1/8	2	Own	.....	½	7 1/16	3(a)	160EP	90EP	Hyp	4.40	44	10	Shim	No	No	.009	4
5	Buick 37-60	Long	No	Yes	No	Sp	2	1	Wo	6½	11	.137	2	Own	.....	½	7¾	3(a)	160EP	90EP	Hyp	3.90	39	10	Shim	No	No	.009	5
6	Buick 37-80	Long	No	Yes	No	Sp	2	1	Wo	6½	11	.137	2	Own	.....	½	7 1/16	4(a)	160EP	90EP	SB	4.22	38	9	Shim	No	No	.009	6
7	Buick 37-90	Long	No	Yes	No	Sp	2	1	Wo	6½	11	.137	2	Own	.....	½	8½	4(a)	160EP	90EP	SB	4.62	37	8	Shim	No	No	.009	7
8	Cadillac V8-60	Long	SC	.....	No	Sp	2	1	Wo	6½	11	.137	2	Own	.....	½	8¼	5	Spec	Spec	Hyp	3.69	48	13	Shim	No	No	.006	8
9	Cadillac V8-65	Long	SC	.....	No	Sp	2	1	Wo	6½	11	.137	2	Own	.....	½	8 9/16	5	160EP	90EP	SB	4.30	43	10	Shim	No	No	.006	9
10	Cadillac V8-70	Long	SC	.....	No	Sp	2	1	Wo	6½	11	.137	2	Own	.....	½	8 9/16	5	160EP	90EP	SB	4.30	43	10	Shim	No	No	.006	10
11	Cadillac V8-75	Long	SC	.....	No	Sp	2	1	Wo	6½	11	.137	2	Own	.....	½	8 1/16	5	160EP	90EP	SB	4.60	46	10	Shim	No	No	.006	11
12	Cadillac V12-85	Long	SC	.....	No	No	2	1	Wo	6½	11	.137	2	Own	.....	½	8 1/16	5	160EP	90EP	SB	4.60	46	10	Shim	No	No	.006	12
13	Cadillac V16-90	Own	.....	.....	No	No	3	2	Wo	6½	11	.140	4	Own	.....	¾	8 1/16	6	160EP	90EP	SB	4.64	51	11	Shim	No	F	.006	13
14	Chevrolet Master	Own	No	Yes	No	Sp	1	1	Mo	6¼	9	1/8	2	Own	.....	½	8 3/8	4	Spec	Spec	Hyp	3.73	41	11	Ste	No	No	.006	14
15	Chevrolet Master De Luxe	Own	No	Yes	No	Sp	1	1	Mo	6¼	9	1/8	2	Own	.....	½	8 3/8	4	Spec	Spec	Hyo	4.22	38	9	Ste	No	No	.006	15
16	Chrysler Royal C-16	B&B	.....	Yes	No	Sp	2	1	Wo	6	10	.125	2	Own	.....	½	9	3¼	Spec EP	90EP	Hyp	4.10	41	10	Shim	Shim	No	.008	16
17	Chrysler Imperial C-14	B&B	.....	Yes	No	Sp	2	1	Wo	6	10	.125	2	Own	.....	½	8 5/8	3¼	Spec EP	90EP	Hyp	4.10	41	10	Shim	Shim	No	.008	17
18	Chrysler Custom Imperial C-15	B&B	.....	Yes	No	Sp	2	1	Wo	6⅛	11	.125	2	Own	.....	½	9 1/16	6¼	Spec EP	90EP	Hyp	4.55	50	11	Shim	Shim	No	.008	18
19	Chrysler Airflow C-17	B&B	.....	Yes	No	Sp	2	1	Wo	6⅛	11	.125	2	Own	.....	½	9½	4	160	90	SB	4.30	43	10	Shim	Shim	No	.008	19
20	Cord Front Drive 812	Long	SC	.....	No	Sp	2	1	Mo	6	10	.137	2	Own	(Note)	Spec	.....	.....	.....	.....	SB	4.70	47	10	Shim	Shim	No	.004	20
21	De Soto S-3	B&B	.....	Yes	No	Sp	2	1	Wo	6	10	.125	2	Own	.....	½	8¼	3¼	Spec EP	90EP	Hyp	4.10	41	10	Shim	Shim	No	.008	21
22	Dodge D-5	B&B	.....	Yes	No	Sp	2	1	Wo	6	10	.125	2	Own	.....	½	8¼	3¼	Spec EP	90EP	Hyp	4.10	41	10	Shim	Shim	No	.008	22
23	Duesenberg 8	Long	SC	.....	No	Sp	.....	2	Mo	6½	11	.137	4	Own	.....	½	.....	4	Spec	Spec	Hyp	.....	.....	.....	Shim	No	Yes	.....	23
24	Ford V8-60	Long	SC	.....	No	Sp	.....	1	Mo	6	8.5	.125	2	Own	.....	¾	8.0	2¼	160EP	90EP	SB	4.44	40	9	Scr	Scr	.....	.010M	24
25	Ford V8-85	Long	SC	.....	No	Sp	.....	1	Mo	5¾	9	.137	2	Own	.....	¾	8.4	2¼	160EP	90EP	SB	3.78	34	9	Scr	Scr	.....	.010M	25
26	Graham Crusader 85	III	.....	.....	.....	Sp	2	1	Mo	5⅛	7⅞	1/8	2	Spi	.....	½	8¼	2	160EP	90EP	SB	4.55	50	11	Shim	.....	No	.....	26
27	Graham Cavalier 95	Long	SC	.....	.....	Sp	2	1	Wo	5½	9	1/8	2	Spi	.....	½	8⅜	2½	160EP	90EP	SB	4.45	49	11	Shim	.....	No	.....	27
28	Graham Supercharger 116	Long	SC	.....	.....	Sp	2	1	Wo	5½	9	1/8	2	Spi	.....	½	7	2½	160EP	90EP	SB	4.27	47	11	Shim	.....	No	.....	28
29	Graham Supercharger 120	Long	SC	.....	.....	Sp	2	1	Wo	5¾	9	1/8	2	Spi	.....	½	7	2½	160EP	90EP	SB	4.27	47	11	Shim	.....	No	.....	29
30	Hudson 73	Own	Cen	No	Ben	Sp	2	1	Cork	5.37	8.62	.203	90	Own	.....	½	8.437	3	110EP	90EP	SB	4.11	37	9	Shim	Shim	No	.0020	30
31	Hudson 74-5-6-7	Own	Cen	No	Ben	Sp	2	1	Cork	6.37	9.75	.203	108	Own	.....	½	8.437	3	110EP	90EP	SB	4.11	37	9	Shim	Shim	No	.0020	31
32	La Salle V8, 37-50	Long	SC	.....	No	Sp	2	1	Wo	6½	10½	.137	2	Own	.....	½	8¼	5	Spec	Spec	Hyp	3.92	47	12	Shim	No	No	.006	32
33	Lincoln-Zephyr	Long	SC	.....	No	Sp	2	1	Mo	6	10	.140	2	Own	.....	¾	9	2½	160EP	90–110EP	SB	4.44	40	9	Scr	Scr	.....	.008	33
34	Lincoln V-12	Long	SC	.....	No	Sp	2	1	Wo	9	12	.137	2	.....	.....	FF	8¼	2½	160EP	90–110EP	SB	4.58	55	12	.....	.....	.....	.010	34
35	Nash Lafayette 400-3710	B&B	.....	.....	No	Sp	1	1	.....	.....	.....	.....	2	Own	3710	½	7⅝	4	90	90	SB	4.11	37	9	Shim	Shim	No	.007	35
36	Nash Ambassador 6-3720	B&B	.....	.....	No	Sp	1	1	.....	.....	.....	.....	2	Own	3720	½	7¾	4	90	90	SB	4.11	37	9	Shim	Shim	No	.007	36
37	Nash Ambassador 8-3780	B&B	.....	.....	No	Sp	1	1	.....	.....	.....	.....	2	Own	3780	½	8.0	6	90	90	SB	4.10	41	10	Shim	Shim	No	.007	37
38	Oldsmobile F-37	B&B	.....	Yes	No	Sp	1	1	Wo	5⅝	9¼	.125	2	Own	.....	½	.....	2½(a)	.....	.....	SB	4.37	35	8	Shim	No	No	.0065	38
39	Oldsmobile L-37	B&B	.....	Yes	No	Sp	1	1	Wo	6	10	.125	2	Own	.....	½	.....	2½(a)	.....	.....	SB	4.37	35	8	Shim	No	No	.0065	39
40	Packard Six	Long	SC	.....	No	Sp	2	1	Wo	6	9½	.125	2	Own	.....	½	.....	5	Spec	Spec	Hyp	4.36	48	11	Scr	.....	No	.004	40
41	Packard 120-C	Long	SC	.....	No	Sp	2	1	Wo	6	10	.137	2	Own	.....	½	.....	5	Spec	Spec	Hyp	4.09	45	11	Scr	.....	No	.004	41
42	Packard Super Eight	Long	Std	.....	No	Sp	2	1	Mo	7	12	.137	2	Own	.....	½	7¾	6½	Spec	Spec	Hyp	4.69	61	14	.....	.....	.....	.004	42
43	Packard Twelve	Long	Std	.....	Ben	Sp	.....	1	Wo	7	12	.137	2	Own	.....	½	8⅛	6¼	Spec	Spec	Hyp	4.41	75	17	.....	.....	.....	.004	43
44	Pierce-Arrow 1701	Long	Std	.....	No	Sp	.....	1	Wo	7	12	.137	2	Own	.....	½	7⅞	6	90EP	90EP	Hyp	4.58	55	12	Scr	Shim	Yes	.0025	44
45	Pierce-Arrow 1702	Long	Std	.....	No	Sp	.....	1	Wo	7	12	.137	2	Own	.....	½	7⅞	6	90EP	90EP	Hyp	4.58	55	12	Scr	Shim	Yes	.0025	45
46	Pierce-Arrow 1703	Long	Std	.....	No	Sp	.....	1	Wo	7	12	.137	2	Own	.....	½	7⅞	6	90EP	90EP	Hyp	4.58	55	12	Scr	Shim	Yes	.0025	46
47	Plymouth P-3	B&B	.....	Yes	No	Sp	2	1	M-W	5⅝	9¼	.133	2	Own	.....	½	8¼	3¼	Spec EP	90EP	Hyp	3.90	39	10	Shim	Shim	No	.008	47
48	Plymouth P-4	B&B	.....	Yes	No	Sp	2	1	M-W	5⅝	9¼	.133	2	Own	.....	½	8¼	3¼	Spec EP	90EP	Hyp	4.10	41	10	Shim	Shim	No	.008	48
49	Pontiac De Luxe Six 37-26 CA	Own	Std	.....	No	Sp	.....	1	Mo	6	10	1/8	2	Own	.....	½	8.0	3	160	90	SB	4.37	35	8	Shim	Shim	No	.003*	49
50	Pontiac De Luxe Eight 37-28 CA	Own	Std	.....	No	Sp	.....	1	Mo	6	10	1/8	2	Own	.....	½	8⅛	3	160	90	SB	4.37	35	8	Shim	Shim	No	.003*	50
51	Studebaker Dict. & Dict. Pl. 6	B&B	Std	Yes	No	Sp	2	1	M-W	5⅝	9¼	.133	2	Spi	.....	½	7¾	3	Spec	Spec	Hyp	4.55	50	11	Shim	Shim	No	.004	51
52	Studebaker President	Long	Std	Yes	No	Sp	2	1	Mo	6	10	.137	2	Spi	.....	½	7¾	3½	Spec	Spec	Hyp	4.55	50	11	Shim	Shim	No	.004	52
53	Terraplane 71	Own	Cen	No	Ben	Sp	2	1	Cork	5.37	8.62	.203	90	Own	.....	½	8.43	3	110EP	90EP	SB	4.11	37	9	Shim	Shim	No	.002	53
54	Terraplane 72	Own	Cen	No	Ben	Sp	2	1	Cork	5.37	8.62	.203	90	Own	.....	½	8.43	3	110EP	90EP	SB	4.11	37	9	Shim	Shim	No	.002	54
55	Willys 37	B&B	Std	.....	No	Sp	2	1	Mo	5⅛	7⅞	.125	2	Own	.....	½	8¼	1¼	190	150	SB	4.30	43	10	Shim	Shim	No	.007	55

*—Minimum ½—Semi floating
¾—Three quarters floating
(a)—Pounds instead of pints
B&B—Borg & Beck

Ben—Bendix
Cen—Centrifugal
Col—Columbia Axle Co.
EP—Extreme Pressure

F—Front Hyp—Hypoid
FF—Full Floating
Ill—Illinois
M—Maximum
Mo—Moulded

M-W—Moulded and Woven
SB—Spiral Bevel
SC—Semi-Centrifugal
Scr—Screw adjustment

Sp—Springs
Spec—Special
Spi—Spicer
StA—Steel-Artillery Type

Ste—Shims and Tapered Collar
Std—Standard
Wo—Woven
Note—Data given applies to front drive. Rear axle is tubular dead axle type.

TRANSMISSION AND UNIVERSAL JOINTS

TRANSMISSION AND UNIVERSAL JOINTS

Line Number	CAR MAKE AND MODEL	Make	Model	Shifting Mechanism: Make	Shifting Mechanism: Type	AUTOMATIC OVERDRIVE: Make	AUTOMATIC OVERDRIVE: Lubrication: Capacity (Pts.)	AUTOMATIC OVERDRIVE: Lubrication: Grade: Summer	AUTOMATIC OVERDRIVE: Lubrication: Grade: Winter	TRANSMISSION GEAR RATIOS (To—1): In High	Overdrive	Second	Low	Reverse	Constant Mesh Gears	TYPE GEARS: For Second	For First	For Reverse	Synchronous Meshing Second and Third Gears?	LUBRICATION: Capacity (Pts.)	LUBRICATION: Grade: Summer	LUBRICATION: Grade: Winter	UNIVERSAL JOINTS: Make	Number Used	Type	Lubricated With	Drive Medium	Torque Medium	Line Number
1	Auburn 654	WG		WG	Std	No	No	No	No	4.44	None	1.60	2.62	3.38	H,S	He	Sp	Sp	Yes	.....	160	90	Mec	2	NB	.....	Sp	Sp	1
2	Auburn 852	Det		Det	Std	No	No	No	No	4.08	None	.....	2.87	3.75	H,S	He	Sp	Sp	Yes	.....	160	90	Mec	2	NB	.....	Sp	Sp	2
3	Auburn SC-852	Det		Det	Std	No	No	No	No	4.08	None	.....	2.87	3.75	H,S	He	Sp	Sp	Yes	.....	160	90	Mec	2	NB	.....	Sp	Sp	3
4	Buick 37-40	Own		Own	Std	No	No	No	No	4.40	None	1.66	2.94	3.78	.....	He	He	He	Yes	1¾	160	90	SB	1	PB	Aut	TT	TT	4
5	Buick 37-60	Own		Own	Std	No	No	No	No	3.90	None	1.53	2.39	2.39	H,S	He	He	He	Yes	2½	160	90	SB	1	PB	Aut	TT	TT	5
6	Buick 37-80	Own		Own	Std	No	No	No	No	4.22	None	1.53	2.39	2.39	H,S	He	He	He	Yes	2½	160	90	SB	1	PB	Aut	TT	TT	6
7	Buick 37-90	Own		Own	Std	No	No	No	No	4.62	None	1.53	2.39	2.39	H,S	He	He	He	Yes	2½	160	90	SB	1	PB	Aut	TT	TT	7
8	Cadillac V8-60	Own		Own	Std	No	No	No	No	3.69	None	1.53	2.39	2.39	S	He	He	He	Yes	2½	90EP	90EP	Mec	2	NB	PL	Sp	Sp	8
9	Cadillac V8-65	Own		Own	Std	No	No	No	No	4.30	None	1.53	2.39	2.39	S	He	He	He	Yes	2½	90EP	90EP	Mec	2	NB	PL	Sp	Sp	9
10	Cadillac V8-70	Own		Own	Std	No	No	No	No	4.30	None	1.53	2.39	2.39	S	He	He	He	Yes	2½	90EP	90EP	Mec	2	NB	PL	Sp	Sp	10
11	Cadillac V8-75	Own		Own	Std	No	No	No	No	4.60	None	1.53	2.39	2.39	S	He	He	He	Yes	2½	90EP	90EP	Mec	2	NB	PL	Sp	Sp	11
12	Cadillac V12-85	Own		Own	Std	No	No	No	No	4.60	None	1.53	2.39	2.39	S	He	He	He	Yes	2½	90EP	90EP	Mec	2	NB	PL	Sp	Sp	12
13	Cadillac V16-90	Own		Own	Std	No	No	No	No	4.64	None	1.47	2.40	2.49	L,S	He	Spr	Spr	.....	4½	160	90	Mec	2	NB	PL	Sp	Sp	13
14	Chevrolet Master	Own		Own	Std	No	No	No	No	3.73	None	1.68	2.94	2.94	S	He	Spr	Spr	Yes	1¾	160	90	Own	1	PB	SL	Sp	TT	14
15	Chevrolet Master De Luxe	Own		Own	Std	No	No	No	No	4.22	None	1.68	2.94	2.94	S	He	Spr	Spr	Yes	1¾	160	90	Own	1	PB	SL	Sp	TT	15
16	Chrysler Royal C-16					Yes†	1	.....	.....	4.10	.7225	1.55	2.57	3.48	.....	He	He	He	.....	2¼	.....	.....	UP	2	NB	PL	Sp	Sp	16
17	Chrysler Imperial C-14					Yes†	1	.....	.....	4.10	.7225	1.55	2.57	3.48	.....	He	He	He	.....	2¼	.....	.....	UP	2	NB	PL	Sp	Sp	17
18	Chrysler Custom Imperial C-15					Yes	.....	.....	.....	4.55	.7040	1.52	2.53	3.16	.....	He	He	He	.....	6¼(a)	.....	.....	UP	2	NB	PL	Sp	Sp	18
19	Cnrysler Airflow C-17					Yes	.....	.....	.....	4.30	.7040	1.52	2.53	3.16	.....	He	He	He	.....	6¼(a)	.....	.....	UP	2	NB	PL	Sp	Sp	19
20	Cord Front Drive 812	Own	4-speed	Ben	V&E	No	No	No	No	4.70	.905 (b)	1.36	2.11	2.53	.....	(c)	Spr	Spr	.....	10(e)	(f)	(f)	Ben	4	Spec	CV	FSA	FSA	20
21	De Soto S-3					Yes†	1	.....	.....	4.10	.7225	1.55	2.57	3.48	.....	He	He	He	.....	2¼	.....	.....	UP	2	NB	PL	Sp	Sp	21
22	Dodge D-5					No	No	No	No	4.10	None	1.55	2.57	3.48	S	He	He	He	Yes	2¼	.....	.....	UP	2	NB	PL	Sp	Sp	22
23	Duesenberg 8	Own		Own	Std	No	No	No	No	3.78°	.....	1.40	2.49	2.92	.....	Sp	Sp	Sp	.....	5	.....	.....	Spi	2	RM,M	.....	Sp	Sp	23
24	Ford V8-60	Own		Own	Std	No	No	No	No	4.44	None	1.765	3.071	4.015	S	He	He	Spr	Yes	1¾	160	110	Spi	...	St Bu	SSG	TR	TR	24
25	Ford V8-85	Own		Own	Std	No	No	No	No	3.78	None	1.604	2.820	3.625	S	He	He	He	Yes	2½	160	110	Spi	...	St Bu	SSG	TR	TR	25
26	Graham Crusader 85	WG		WG	Std	No	No	No	No	4.55	None	1.426	2.43	3.24	S	He	Sp	Sp	Yes	1½	160	90	UP	2	NB	.....	Sp	Sp	26
27	Graham Cavalier 95	WG		WG	Std	No	No	No	No	4.45	None	1.426	2.43	3.24	S	He	Sp	Sp	Yes	2½	160	90	UP	2	NB	.....	Sp	Sp	27
28	Graham Supercharger 116	WG		WG	Std	WG†	2½	70	50	4.27	.....	1.55	2.57	3.48	S	He	He	He	Yes	2½	160	90	UP	2	NB	.....	Sp	Sp	28
29	Graham Supercharger 120	WG		WG	Std	WG†	2½	70	50	4.27	.....	1.55	2.57	3.48	S	He	He	He	Yes	5	160	90	UP	2	NB	.....	Sp	Sp	29
30	Hudson 73	Own		Ben	V&E	No	No	No	No	4.11	None	1.61	2.42	2.99	.....	He	He	Spr	No	3	90EP	80EP	Spi	1	NB	Fib	Sp	Sp	30
31	Hudson 74-5-6-7	Own		Ben	V&E	No	No	No	No	4.11	None	1.61	2.42	2.99	.....	He	He	Spr	No	3	90EP	80EP	Spi	1	NB	Fib	Sp	Sp	31
32	La Salle 37-50	Own		Own	Std	No	No	No	No	3.92	None	1.53	2.39	2.39	S	He	He	He	Yes	2½	90EP	90EP	Mec	2	NB	PL	Sp	Sp	32
33	Lincoln-Zephyr	Own		Own	Std	No	No	No	No	4.44	None	1.60	2.82	3.62	H.S.	He	He	He	Yes	2½	160	90–110	Spi	1	PB	SSG	TT	TT	33
34	Lincoln V12	Own		Own	Std	No	No	No	No	4.58	None	1.76	2.57	3.40	H.S.	He	He	He	Yes	2½	160	90–110	Spi	1	PB	SSG	TT	TT	34
35	Nash Lafayette 400-3710	Own	3710	Own	Std	WG	3	60(d)	50(d)	4.11	.708	1.63	2.72	3.35	S	He	Sp	Sp	Yes	3	90EP	80EP	Mec	2	NB	PL	Sp	Sp	35
36	Nash Ambassador 6-3720	Own	3720	Own	Std	WG	3	70(d)	50(d)	4.11	.708	1.55	2.57	3.48	.....	He	He	He	Yes	3½	90EP	80EP	Mec	2	NB	PL	Sp	Sp	36
37	Nash Ambassador 8-3780	Own	3780	Own	Std	WG	3	70(d)	50(d)	4.10	.708	1.55	2.57	3.48	.....	He	He	He	Yes	3½	90EP	90EP	Mec	2	NB	PL	Sp	Sp	37
38	Oldsmobile F-37	Own	F-37	Own	Std	No	No	No	No	4.37	None	1.66	2.94	3.78	S	He	He	He	Yes	2*	160	90	Mec	3	NB	PL	Sp	Sp	38
39	Oldsmobile L-37	Own	L-37	Own	Std	No	No	No	No	4.37	None	1.66	2.94	3.78	S	He	He	He	Yes	2*	160	90	Mec	3	NB	PL	Sp	Sp	39
40	Packard Six				Man	No	No	No	No	4.36	None	1.53	2.43	3.18	H,S	He	He	He	Yes	4	160	90	Mec	2	NB	PG	Sp	Sp	40
41	Packard 120-C				Man	No	No	No	No	4.09	None	1.53	2.43	3.17	H,S	He	He	He	Yes	4	160	90	Mec	2	NB	PG	Sp	Sp	41
42	Packard Super Eight				Man	No	No	No	No	4.69	None	1.52	2.46	2.88	H,S,L	He	He	He	Yes	4½	160	90	UP	2	NB	PG	Sp	Sp	42
43	Packard Twelve				Man	No	No	No	No	4.41	None	1.53	2.46	2.84	H,S,L	He	He	He	Yes	4½	160	90	Spi	2	NB	PG	Sp	Sp	43
44	Pierce-Arrow 1701	WG		WG	Std	WG	.....	.....	.....	4.58	.705	1.70	2.83	3.40	H,S	He	He	He	Yes	4½	90	80	UP	2	NB	PL	Sp	Sp	44
45	Pierce-Arrow 1702	WG		WG	Std	WG	.....	.....	.....	4.58	.705	1.70	2.83	3.40	H,S	He	He	He	Yes	4½	90	80	UP	2	NB	PL	Sp	Sp	45
46	Pierce-Arrow 1703	WG		WG	Std	WG	.....	.....	.....	4.58	.705	1.70	2.83	3.40	H,S	He	He	He	Yes	4½	90	80	UP	2	NB	PL	Sp	Sp	46
47	Plymouth P-3				Std	No	No	No	No	3.90	None	1.55	2.57	3.48	S	He	He	He	Yes	2¼	160	90	UP	2	NB	PL	Sp	Sp	47
48	Plymouth P-4				Std	No	No	No	No	4.10	None	1.55	2.57	3.48	S	He	He	He	Yes	2¼	160	90	UP	2	NB	PL	Sp	Sp	48
49	Pontiac De Luxe Six 37-26 CA	Own		Own	Std	No	No	No	No	4.37	None	1.66	2.94	3.78	S	He	He	He	Yes	1¾	160	90	Mec	2	NB	PL	Sp	Sp	49
50	Pontiac De Luxe Eight 37-28 CA	Own		Own	Std	No	No	No	No	4.37	None	1.66	2.94	3.78	S	He	He	He	Yes	1¾	160	90	Mec	2	NB	PL	Sp	Sp	50
51	Studebaker Dict. & Dict. Pl. 6	WG		No	No	No	No	No	No	4.55	None	1.55	2.57	3.48	H,S	He	He	He	Yes	.....	.....	.....	T'mp	2	Ru	None	Sp	Sp	51
52	Studebaker President	WG			Man	No	No	No	No	4.55	None	1.518	2.526	3.158	H,S	He	He	He	Yes	.....	110	90	Spi	2	NB	PL	Sp	Sp	52
53	Terraplane 71	Own		Ben	V&E	No	No	No	No	4.11	None	1.61	2.42	2.99	.....	He	He	Spr	No	3	90X	80X	Spi	1	NB	Fib	Sp	Sp	53
54	Terraplane 72	Own		Ben	V&E	No	No	No	No	4.11	None	1.61	2.42	2.99	.....	He	He	Spr	No	3	90X	90X	Spi	1	NB	Fib	Sp	Sp	54
55	Willys 37	WG	T-84-C	No	No	No	No	No	No	4.30	None	1.426	2.43	3.24	S	He	Spr	Spr	Yes	1¼	160	90	UP	2	PB	Fib	Sp	Sp	55

°—Others also †—At extra cost
*—Pounds instead of pints
(a)—With overdrive
AF—Anti-friction
Aut—Automatic—from transmission
(b)—Third speed instead of overdrive
Ben—Bendix
(c)—Helical on Second, Third and Fourth

CG—Chassis Grease
CV—Constant Velocity
(d)—Motor Oil
Det—Detroit Steel Products Co.
(e)—Rear Axle and Transmission Combined
(f)—Elco 100-31 EP
F-R—Front and Rear
Fib—Fiber grease

FSA—Front Suspension Arm
H—High
He—Helical
KH—Kelsey-Hayes
L—Low or first
Man—Manual
Mec—Mechanics
Mo—Mola Steel

NB—Needle Bearing
O—Own
PB—Plain Bearing
PG—Pressure Gun
PL—Pre-lubricated
RM-M—Rubber and Metal and Metal
Ru—Rubber Rze—Rseppa
S—Second SA—Steel Artillery

Sei—Seiberling
SB—Spicer-Buick Design
SL—Self Lubricated from Transmission
Sp—Springs
Spec—Special Spi—Spicer
SSG—Oil, Soap Soda grease
Spr—Spur Std—Standard
St Bu—Steel Bushing

T'mp—Thompson Products
TR—Torque Tube & Radius Rods
TT—Torque Tube
UP—Universal Products US—U. S. Tires
V&E—Vacuum and Electric
Wd—Wire with Disk Covers
WG—Warner Gear
X—Extreme Pressure Lubricant

TIRES, WHEELS, SPRINGS, SHACKLES

Line Number	CAR MAKE AND MODEL	TIRES: MAKE	TIRES: SIZE	TIRES: No. of Plies	TIRES: Inflation Pressure (Lbs.) Front	TIRES: Inflation Pressure (Lbs.) Rear	Axle Clearance for Jack (Ins.) Front	Axle Clearance for Jack (Ins.) Rear	WHEELS: Type	WHEELS: Make	RIM: Diameter (Ins.)	RIM: Width (Ins.)	SPRINGS FRONT: Suspension	SPRINGS FRONT: Radius Rods or Sway Eliminators	SPRINGS FRONT: Type	SPRINGS FRONT: Make	SPRINGS FRONT: Material	SPRINGS FRONT: Length (Ins.)	SPRINGS FRONT: Width or Dia. of Coil Wire (Ins.)	SPRINGS FRONT: No. of Leaves or Coils	SPRINGS FRONT: Spring Rate (Lbs. per In.)	SPRINGS FRONT: Shackled	SPRINGS REAR: Suspension	SPRINGS REAR: Type	SPRINGS REAR: Make	SPRINGS REAR: Material	SPRINGS REAR: Length	SPRINGS REAR: Width	SPRINGS REAR: No. of Leaves	SPRINGS REAR: Spring Rate (Lbs. per In.)	Lubrication of Leaves	Spring Cover Make	SHACKLES FRONT: Type	SHACKLES FRONT: Make	SHACKLES REAR: Type	SHACKLES REAR: Make	Line Number
1	Auburn 654	Various	6.00/16	4	28	28	....	10 3/8	Steel	MW	16.0	4.50	Con	....	½E	Det	SM	38	2	8	.....	R	Con	½E	Det	SM	54½	2	8	....	Gra	Yes	Ru	.....	Ru	.....	1
2	Auburn 852	Various	6.50/16	4	30	30	....	10 3/8	Wi	MW	16.0	4.50	Con	....	½E	Det	SM	42	2	9	.....	R	Con	½E	Det	SM	56¾	2	8	....	Gra	Yes	Ru	.....	Ru	.....	2
3	Auburn SC-852	Various	7.00/16	6	32	32	....	10 3/8	Wi	MW	16.0	4.50	Con	....	½E	Det	SM	42	2	9	.....	R	Con	½E	Det	SM	56¾	2	8	....	Gra	Yes	Ru	.....	Ru	.....	3
4	Buick 36-40	US, Fir	6.50/16	4	23	28	10 7/8	9 5/16	Disc	MW	16.0	5.00	Ind	....	C	Own	SM	14 1/8 F	.648	7¼	95*	No	Con	½E	Own	SM	54½	2	8	128	Gra	And	No	No	Th	PM	4
5	Buick 36-60	US, Fir	7.00/15	4	23	28	10 5/16	9¾	Disc	MW	15.0	5.50	Ind	....	C	Own	SM	14¼ F	.660	7¼	103*	No	Con	½E	Own	SM	54½	2	8	128	Gra	And	No	No	Th	PM	5
6	Buick 36-80	US, Fir	7.00/16	4	25	30	10 1/16	9 1/16	Disc	MW	16.0	5.00	Ind	....	C	Own	SM	14 3/4 F	.692	7½	117*	No	Con	½E	Own	SM	57 3/8	2¼	8	135	Gra	And	No	No	Th	PM	6
7	Buick 36-90	US, Fir	7.50/16	6	25	30	10 5/8	10	Disc	MW	16.0	5.00	Ind	....	C	Own	SM	14 5/8 F	.713	7½	130*	No	Con	½E	Own	SM	59	2¼	10	145	Gra	And	No	No	Th	PM	7
8	Cadillac V8-60	US, Fir	7.00/16	4	26	26	10 3/4	10 1/4	Disc	MW	16.0	4.50	Ind	No	C	Own	9260	.....	.....	.....	.....	No	Con	½E	E	9260	54½	2	9	....	.....	.....	No	No	Th	PM	8
9	Cadillac V8-65	US, Fir	7.50/16	4	28	28	11 1/4	11 3/8	Disc	MW	16.0	4.50	Ind	No	C	Own	9260	.....	.....	.....	.....	No	Con	½E	SP	9260	61 3/4	2¼	9	....	Gra	.....	No	No	Th	PM	9
10	Cadillac V8-70	US, Fir	7.50/16	4	28	28	11 1/4	11 5/8	Disc	MW	16.0	4.50	Ind	No	C	Own	9260	.....	.....	.....	.....	No	Con	½E	SP	9260	61 3/4	2¼	9	....	Gra	.....	No	No	Th	PM	10
11	Cadillac V8-75	US, Fir	7.50/16	6	32	32	11 1/4	12 1/8	Disc	MW	16.0	5.00	Ind	No	C	Own	9260	.....	.....	.....	.....	No	Con	½E	SP	9260	61 3/4	2¼	9	....	Gra	.....	No	No	Th	PM	11
12	Cadillac V12-85	US, Fir	7.50/16	6	32	32	12 1/4	12 1/4	Disc	MW	16.0	5.00	Ind	No	C	Own	9260	.....	.....	.....	.....	No	Con	½E	SP	9260	61 3/4	2¼	9	....	Gra	.....	No	No	Th-RB	Own	12
13	Cadillac V16-90	US, Fir	7.50/17	6	36	36	10 11/16	10 11/16	Wd	KH	17.0	4.19	Ind	No	C	Own	9260	.....	.....	.....	.....	No	Con	½E	SP	9260	66	2¼	10	....	Gra	.....	No	No	Th-RB	Own	13
14	Chevrolet Master	US, Gr	6.00/16	4	30	30	BJ	BJ	SD	Own	16.0	4.00	Con	No	½E	Own	CS	36	1¾	8	123	R	Con	½E	Own	CS	49	1¾	8	129	Gra	No	Th	Own	Th	Own	14
15	Chevrolet Master De Luxe	US, Gr	6.00/16	4	30	30	BJ	BJ	SD	Own	16.0	4.00	Ind	....	.....	.....	.....	.....	.....	.....	235	....	Con	½E	Own	CS	49	1¾	8	129	Gra	Own	Th	Own	Th	Own	15
16	Chrysler Royal C-16	Goodyear	6.25/16	4	28	28	BJ	BJ	Disc	MW	16.0	4.25	Ind	SE	C	.....	Amo	.....	.....	.....	.....	.....	Con	½E	.....	Amo	53 5/8	1¾	9	.....	.....	Met	No	No	Th-U(b)	.....	16
17	Chrysler Imperial C-14	Goodyear	6.50/16	4	28	28	BJ	BJ	Disc	MW	16.0	4.50	Ind	SE	C	.....	Amo	.....	.....	.....	.....	.....	Con	½E	.....	Amo	53 5/8	1¾	11	.....	.....	Met	No	No	Th-U(b)	.....	17
18	Chrysler Cus. Imperial C-15	Goodyear	7.50/16	6	28	28	BJ	BJ	Disc	MW	16.0	5.50	Ind	SE	C	.....	Amo	.....	.....	.....	.....	.....	Con	½E	.....	Amo	53 5/8	2¼	11	.....	.....	Met	No	No	Th-U(b)	.....	18
19	Chrysler Airflow C-17	Goodyear	7.50/16	4	28	28	.....	.....	Disc	MW	16.0	5.50	Con	SE	½E	.....	Amo	(c)	2¼	13(d)	.....	R	Con	½E	.....	Amo	56 7/8	2	12	.....	.....	Met	Th-U	.....	Th-U(b)	.....	19
20	Cord Front Drive 812	Gr, Fir	6.50/16	6	32	32	BJ	BJ	Steel	MW	16.0	4.50	Ind	.....	½E-T	Det	ChM	34¼	2½	14	860	No	Con	½E	Det	SM	54½	2	8	120	Gra	And	No	No	Th-U(b)	.....	20
21	De Soto S-3	Goodyear	6.00/16	4	28	28	BJ	BJ	Disc	MW	16.0	4.25	Ind	SE	C	.....	Amo	.....	.....	.....	.....	.....	Con	½E	.....	Amo	53 5/8	1¾	9	.....	.....	Met	No	No	Th-U(b)	.....	21
22	Dodge D-5	Goodyear	6.00/16	4	28	28	BJ	BJ	Disc	Budd	16.0	4.00	Con	SE	½E	.....	Amo	37	1¾	10(a)	.....	F	Con	½E	.....	Amo	53 5/8	1¾	9	.....	.....	Met	Th-U	.....	Th-U(b)	.....	22
23	Duesenberg 8	Various	7.00/18	6	40	40	....	.....	.....	.....	.....	.....	Con	.....	½E	Det	SM	41	2½	12	.....	R	Con	½E	Det	SM	62½	2½	12	.....	.....	.....	Met	Own	Met	Own	23
24	Ford V8-60	Various	5.50/16	4	30	30	....	.....	.....	.....	16.0	3.50	T	.....	T	.....	CS	40¼	2	11	.....	.....	T	T	.....	CS	46½	2½	14 M	255	.....	.....	OL	Own	OL	Own	24
25	Ford V8-85	Various	6.00/16	4	30	30	....	.....	.....	.....	16.0	4.00	T	.....	T	.....	CS	40¼	2	12	.....	.....	T	T	.....	CS	46½	2¼	14 M	285	.....	.....	OL	Own	OL	Own	25
26	Graham Crusader 85	Various	(e)	4	(f)	(f)	.....	.....	Steel	MW	m	m	Con	No	½E	.....	Amo	38.0	1¾	.....	.....	F	Con	½E	.....	Amo	50	1¾	.....	.....	.....	.....	RB	.....	RB	.....	26
27	Graham Cavalier 95	Various	6.00/16	..	24	28	.....	.....	Disc	MW	16.0	4.00	Con	SE	½E	.....	Amo	39.0	1¾	.....	.....	F	Con	½E	.....	Amo	53½	1¾	.....	.....	.....	.....	RB	.....	RB	.....	27
28	Graham Supercharger 116	Various	6.25/16	4	24	28	.....	.....	Disc	KH	16.0	4.00	Con	SE	½E	.....	Amo	39.0	1¾	.....	.....	F	Con	½E	.....	Amo	53½	1¾	.....	.....	.....	.....	RB	.....	RB	.....	28
29	Graham Supercharger 120	Various	6.50/16	..	24	28	.....	.....	Disc	KH	16.0	4.00	Con	SE	½E	.....	Amo	39.0	1¾	.....	.....	F	Con	½E	.....	Amo	53½	1¾	.....	.....	.....	Yes	RB	.....	RB	.....	29
30	Hudson 73	Goodyear	6.00/16	4	24	32	BJ	BJ	StA	MW	16.0	4.00	Con	TA	½E	E-M	Mo-65	37.4	1.75	8	110	F-R	Con	½E	E-M	Mo-65	52.5	1.75	9	110	CG	O-Fa	Th-U	PM	Th-U	PM	30
31	Hudson 74-5-6-7	Goodyear	6.25/16	4	24	32	BJ	BJ	StA	MW	16.0	4.00	Con	TA	½E	E-M	Mo-65	37.5	1.75	9	110	....	Con	½E	E-M	Mo-65	52.5	1.75	9	110	CG	O-Fa	Th-U	PM	Th-U	PM	31
32	La Salle 37-50	US, Fir	7.00/16	4	26	26	10 3/4	10 1/4	D	MW	16.0	4.50	Ind	No	C	Own	9260	.....	.....	.....	.....	.....	Con	½E	E	9260	54½	2	9	.....	Wx	No	No	No	Th	PM	32
33	Lincoln-Zephyr	Various	7.00/16	4	28	28	....	6½	SD	.....	16.0	4.00	T	RR	T	.....	C5	42.5	2.00	14	300	....	T	T	.....	CS	48½	2¼	15	250	.....	.....	.....	.....	.....	.....	33
34	Lincoln V-12	Various	7.50/17	6	40	40	.....	.....	SD	.....	17.0	5.00	Con	RR	½E	.....	.....	42	2½	.....	.....	F	Con	½E	.....	.....	62	2½	.....	.....	.....	.....	.....	.....	.....	.....	34
35	Nash Lafayette 400-3710	Various	6.00/16	4	28	28	14.0	12 7/8	StA-D	.....	16.0	4.25	Con	No	½E	.....	SM	43	1¾	.....	.....	F	Con	½E	.....	SM	54	1¾	.....	.....	Lp-110	Met	Th	PM	Th	PM	35
36	Nash Ambassador 6-3720	Various	6.25/16	4	27	..	14 1/8	13.0	StA-D	.....	16.0	4.25	Con	No	½E	.....	SM	43	1¾	.....	115	F	Con	½E	.....	SM	54	1¾	.....	.....	Lp-110	Met	Th	PM	Th	PM	36
37	Nash Ambassador 8-3780	Various	7.00/16	4	28	28	14 5/16	13 1/2	StA-D	.....	16.0	5.00	Con	No	½E	.....	SM	43	1¾	.....	.....	F	Con	½E	.....	SM	54	1¾	.....	.....	Lp-110	Met	Th	PM	Th	PM	37
38	Oldsmobile F-37	Various	6.50/16	4	24	28	15 1/2	17	Steel	Var	16.0	4.50	Ind	....	C	Own	SM	.....	.....	.....	295	No	Con	½E	Own	SM	54½	2	7	122	.....	And	No	No	Th-U	Own	38
39	Oldsmobile L-37	Various	7.00/16	4	24	24	16	17½	Steel	KH	16.0	4.50	Ind	....	C	Own	SM	.....	.....	.....	325	No	Con	½E	Own	SM	54½	2	8	130	.....	And	No	No	Th-U	Own	39
40	Packard Six	Various	6.50/16	4	22	24	....	.....	Disc	MW	16.0	4.50	Ind	RR	C	.....	SM	.....	.585	8 5/16	70	No	Con	½E	.....	SM	54.0	1¾	.....	120	Gra	Met	No	No	ST	.....	40
41	Packard 120-C	Various	7.00/16	4	23	25	....	.....	Disc	MW	16.0	4.50	Ind	RR	C	.....	SM	.....	.625	7¾	75	No	Con	½E	.....	SM	54.0	1¾	.....	125	Gra	Met	No	No	STR	.....	41
42	Packard Super Eight	Various	7.50/16	6	26	30	....	.....	Disc	MW	16.0	5.50	Ind	RS	C	.....	SM	.....	.650	9¾	90	No	Con	½E	.....	SM	58.0	2	11	145	Gra	Met	No	No	STR	.....	42
43	Packard Twelve	Various	8.25/16	6	28	32	....	.....	Disc	MW	16.0	6.00	Ind	RS	C	.....	SM	.....	.525	8 5/16	120	No	Con	½E	.....	SM	60½	2¼	10	150	Gra	Met	No	No	STR	.....	43
44	Pierce-Arrow 1701	Various	7.00/17	..	40	40	11	13	Wire	KH	17.0	4.19	Con	No	½E	SP	SM	44	2¼	9	130	R	Con	½E	SP	SM	64	2½	..	.....	Grd	And	BB	Faf	BB	Faf	44
45	Pierce-Arrow 1702	Various	7.50/17	6	40	40	11½	13½	Wire	KH	17.0	4.19	Con	No	½E	SP	SM	44	2½	9	130	R	Con	½E	SP	SM	64	2½	..	.....	Grd	And	BB	Faf	BB	Faf	45
46	Pierce-Arrow 1703	Various	7.50/17	6	40	40	11½	13½	Wire	KH	17.0	4.19	Con	No	½E	SP	SM	44	2½	9	130	R	Con	½E	SP	SM	64	2½	..	.....	Grd	And	BB	Faf	BB	Faf	46
47	Plymouth P-3	Goodyear	5.50/16	4	32	32	....	.....	Disc	MW	16.0	4.00	Con	No	½E	.....	Amo	37	1¾	8	.....	F	Con	½E	.....	Amo	53 5/8	1¾	7	.....	.....	Yes†	Th-U	.....	Th-U(b)	.....	47
48	Plymouth P-4	Goodyear	6.00/16	4	28	28	BJ	BJ	Disc	MW	16.0	4.00	Con	SE	½E	.....	Amo	37	1¾	10(a)	.....	F	Con	½E	.....	Amo	53 5/8	1¾	9	.....	.....	Yes†	Th-U	.....	Th-U(b)	.....	48
49	Pontiac De Luxe Six 37-26 CA	US, Fir, Gr	6.00/16	4	25	30	12½	10 1/8	Steel	KH	16.0	4.50	Ind	No	C	Own	SM	14	....	9¼	90	No	Con	½E	Own	SCM	54.0	2	8	126	Gra	Met	No	No	ST	Own	49
50	Pontiac De L. Eight 37-28 CA	US, Fir, Gr	6.50/16	4	25	30	13	10½	Steel	KH	16.0	4.50	Ind	No	C	Own	SM	.....	.....	9¼	90	No	Con	½E	Own	SCM	54.0	2	8	126	Gra	Met	No	No	ST	Own	50
51	Studebaker Dict. & Dict. Pl. 6	Firestone	6.00/16	4	30	30	7 7/16	....	Disc	Budd	16.0	4.00	Con(g)	TA	½E(h)	Own	SM	37½	2	11	180	R	Con	½E	Own	SM	54.0	2	8	120	Gra	AA	Th-U	PM	Th-U	PM	51
52	Studebaker President	Firestone	6.50/16	4	30	30	10 5/16	....	Disc	Budd	16.0	4.50	Ind	TA	½E-T	Own	SM	48	2½	15	112½*	....	Con	½E	Own	SM	56.0	2	8	120	Gra	AA	.....	.....	RB	Har	52
53	Terraplane 71	Goodyear	6.00/16	4	24	32	BJ	BJ	SA	MW	16.0	4.00	Con	No	½E	E-M	Mo-65	33	1.75	8	110	FR	Con	½E	E-M	Mo-65	52.5	1.75	9	110	CG	O-Fa	Th-U	PM	Th-U	PM	53
54	Terraplane 72	Goodyear	6.00/16	4	24	32	BJ	BJ	SA	MW	16.0	4.00	Con	No	½E	E-M	Mo-65	33	1.75	9	110	FR	Con	½E	E-M	Mo-65	52.5	1.75	9	110	CG	O-Fa	Th-U	PM	Th-U	PM	54
55	Willys 37	Gr, Sei	5.50/16	4	29	29	BJ	BJ	Disc	KH	16.0	3.50	Con	No	½E	M	CV	33	1¾	7	180	R	Con	½E	M	CV	46.0	1¾	6	110	Gra	No	Th-U	.....	Th-U	.....	55

*—at Wheel †—At Extra Cost
½E—Semi-Elliptic
(a)—Includes Two Rebound Plates
AA—Anderson Ajax
AHR—American Hard Rubber Co.
Amo—"Amola" Steel And—Anderson
(b)—Rubber Bushing—Front End
BB—Ball Bearing
CG—Chassis Grease

BJ—Bumper Jacks Used
(c)—R.H. 44, L.H. 44—7/16 C—Coil
ChM—Chrome Manganese Steel
Con—Conventional CS—Chromium Steel
CV—Chrome Vanadium Steel
(d)—Includes One Rebound Plate D—Disc
Det—Detroit Steel Products Co.
(e)—5.25/17—2 Door Sedan, 6.00/16—4 Door Sedan

E—Eaton E-M—Eaton or Mather
(f)—5.25/17—Front 28, Rear 32; 6.00/17—Front 24, Rear 28
F—Free Length F—Front (Shackles)
Fa—Fabric Fir—Firestone Faf—Fafnir
(g)—Dict. Planer—Independent
Gr—Goodrich Gra—Graphite Grease
Grd—Gredag No. 32
Har—Harris-Thompson Products

(h)—Dict. Planer—Transverse. 48'x2½x13 Leaves
Ind—Independent KH—Kelsey Hayes
Lp—Lubriplate M—Mather
M—Maximum Mec—Mechanical
(m)—17.0x3.25 & 16.0x4.10
Met—Metal MW—Motor Wheel
O—Own OL—Oilless Type
PM—Pressed Metals of Amer.

R—Rear RB—Rubber Bushing
RS—Radius Rods and Sway Eliminator
Ru—Rubber RR—Radius Rods
SE—Sway Eliminator
SCM—Silico or Chrome Manganese
SD—Spoke Type Disc Sei—Seiberling
SM—Silico Manganese
SP—Spring Perch Co.
ST—Steel Threaded Type

StA—Steel Artillery
StA-D—Steel, Artillery or Disc
STR—Steel Threaded and Rubber
T—Transverse TA—Torque Arm
Th—Thompson Products
Th—Threaded (Shackle type) U—"U" Type Var—Various Wd—Wood
Wag—Wagner Wi—Wire
Wx—Wax Impregnated Liners

STEERING, FRONT AXLE, BRAKES

Line Number	CAR MAKE AND MODEL	STEERING: Gear Type	STEERING: Gear Make	STEERING: Linkage—Type	STEERING: No. of Turns of Wheel for Left to Right Swing	STEERING: Car Turning Radius (Minimum)	STEERING: Caster—(Deg.)	STEERING: Camber—(Deg.)	STEERING: Toe-in—(Inches)	STEERING: Kingpin Inclination (Deg.)	STEERING: Wheel Make	STEERING: Wheel Diam. (Ins.)	FRONT AXLE: Make	FRONT AXLE: Section Type	FRONT AXLE: End Type	FRONT AXLE: Minimum Road Clearance	FOOT BRAKE: Make	FOOT BRAKE: Type	FOOT BRAKE: Shoe-anchor	FOOT BRAKE: Power-unit—Make	FOOT BRAKE: Type Lining	FOOT BRAKE: Drum Material	FOOT BRAKE: Drum Diameter	FOOT BRAKE: Lining Length per Wheel	FOOT BRAKE: Lining Width	FOOT BRAKE: Lining Thickness	FOOT BRAKE: Clearance Toe	FOOT BRAKE: Clearance Heel	FOOT BRAKE: Total Braking Area	FOOT BRAKE: Per Cent Braking on Rear	HAND BRAKE: Operates on	HAND BRAKE: In-or External	HAND BRAKE: Drum Diameter	HAND BRAKE: Lining Length per Drum	HAND BRAKE: Lining Width	HAND BRAKE: Lining Thickness	HAND BRAKE: Lining Clearance	Line Number
1	Auburn 654	CL	Ross				3.5-4	1½	⅛+	7½		17	Col	I	RE		Ben	Hy		No	Mo	S.eel	12	24	1½	¼	.010	.010	145.6	50.0	RS	In	12	24	1½	¼	.010	1
2	Auburn 852	CL	Ross		3½		2-3	1½	⅛+	7½		17	Col	I	RE		Ben	Hy		No	Mo	Cen	12	24	2	¼	.010	.010	194.2	50.0	RS	In	12	24	2	¼	.010	2
3	Auburn SC-852	CL	Ross		3½		2-3	1½	⅛+	7½		17	Col	I	RE		Ben	Hy		No	Mo	Cen	12	24	2	¼	.010	.010	194.2	50.0	RS	In	12	24	2	¼	.010	3
4	Buick 37-40	WR	Sag	D-TR	4	19½	N½+⅝	N¼+1	0–⅛	4.0	In, Sh	18	No	No	No	7⅝	Own	Hy	R	No	Wo	Cen	12	22	1¾	¼	.010	.010	158.7	47.0	RS	In	12	22	1¾	¼	.010	4
5	Buick 37-60	WR	Sag	D-TR	4½	21.0	N½+⅝	N¼+1	0–⅛	4.0	In, Sh	18	No	No	No	7⅝	Own	Hy	R	No	Wo	Cen	12	22	2	¼	.010	.010	181.4	47.0	RS	In	12	22	2	¼	.010	5
6	Buick 37-80	WR	Sag	D-TR	4¾	22.0	N⅝+⅝	N¼+1	0–⅛	4¾	In, Sh	18	No	No	No	7¾	Own	Hy	R	No	Wo	CI	12	22	2	¼	.010	.010	181.4	47.4	RS	In	12	22	2	¼	.010	6
7	Buick 37-90	WR	Sag	D-TR	4¾	24.0	N⅝+⅝	N¼+1	0–⅛	4½	In, Sh	18	No	No	No	8⅛	Own	Hy	R	No	Wo	CI	14	26	2	¼	.010	.010	214.6	47.4	RS	In	14	26	2	¼	.010	7
8	Cadillac V8-60	WR	Sag		4½		¼–1	¼–1	0–⅛	4° 51′	Sh		No	No	No		Ben	Hy		No	Mo	Cen	12	25⅞	2	¼	.010	.010	220	45½	RS	In	12	25⅞	2	¼	.010	8
9	Cadillac V8-65	WR	Sag		4½		0–±¼	0–½	0–⅛	5° 38′	Sh		No	No	No		Ben	Hy		No	Mo	Cen	12	25⅞	2	¼	.010	.010	220	44	RS	In	12	25⅞	2	¼	.010	9
10	Cadillac V8-70	WR	Sag		4½	22.5	0–±¼	0–½	0–⅛	5° 38′	Sh		No	No	No		Ben	Hy		No	Mo	Cen	12	25⅞	2	¼	.010	.010	220	44	RS	In	12	25⅞	2	¼	.010	10
11	Cadillac V8-75	WR	Sag		4½	23.5	0–±¼	0–½	0–⅛	5° 38′	Sh		No	No	No		Ben	Hy		No	Mo	Cen	14	30	2¼	¼	.010	.010	257.5	42	RS	In	14	30	2¼	¼	.010	11
12	Cadillac V12-85	WR	Sag			23.5	0–±¼	0–½	0–⅛	5° 38′	Sh		No	No	No		Ben	Hy		No	Mo	Cen	14	(g)	2¼	¼	.010	.010	257.5	42	RS	In	14	(g)	2¼	¼	.010	12
13	Cadillac V16-90	WR	Sag		4	23.5	0–±¼	0–½	0–⅛	4° 30′	Sh		No	No	No		Ben	Hy		Ben	MW	CI	14	(g)	2¼	¼	.010	.010	257.5	45	RS	In	14	(g)	2¼	¼	.010	13
14	Chevrolet Master	WS	Own	Con			2¾±½	1±½	¾–⅞	7⅛	Own	17 1/16	Ow	I	RE	8½	Own	Hy	R	No	Mo	CIS	11	22⅝	1¾	⅛			158.2	47½	RS	In	11	22⅝	1¾	⅛		14
15	Chevrolet Master De Luxe	WR	Own	Con			0	¼–¾	⅛–⅜	7¾	Own	17 1/16	Ow	No	No	9⅞	Own	Hy	R	No	Mo	CIS	11	22⅝	1¾	⅛			158.2	47½	RS	In	11	22⅝	1¾	⅛		15
16	Chrysler Royal C-16	WR		D-DL	4		1½	N¼+½	0–⅛	4¾–6		18Sr	No	No	No	8¼		Hy	R	No	Mo	Cen	10	(d)	2	¼	.012	.006	148.4	45	DS	Ex	6	16⅛	2	½	.025	16
17	Chrysler Imperial C-14	WR		D-DL	4½		1½	N¼+½	0–⅛	4¾–6		18Sr	No	No	No	8⅝		Hy	R	No	Mo	Cen	11	22⅛	2	¼	.012	.006	177¼	45	DS	Ex	6	16⅛	2	½	.025	17
18	Chrysler Custom Imperial C-15	WR		CP	4½		2	N¼+½	0–½	4¾–6		18½Sr	No	No	No	9⅞		Hy	R	Yes	Mo	Cen	13	24	2	¼	.012	.006	198.8	45	DS	Ex	7	21½	2½	½	.025	18
19	Chrysler Airflow C-17	WR		Con	4½		1–3	¼–¾	0–⅛	4½–5½		18Sr	No	Tu	RE	9½		Hy	R	Yes	Mo	Cen	13	24	2	¼	.012	.006	198.8	40	DS	Ex	7	21⅝	2½	½	.025	19
20	Cord Front Drive 812	RT	Gem	D-TR	3½	23.0	1–2½	1	0–⅛	h 6	Sh	17½		Fr D	rive	9¼	Ben	Hy	R	No	MW	Cen	11	24	2¼	¼	.010	.010	216.0	50	RS	In	11	24	2¼	¼	.010	20
21	De Soto S-3	WR		D-DL	4		1½	¼–1½	0–⅛	4¾–6		18Sr	No	No	No	8¼		Hy	R	No	Mo	Cen	10	(d)	2	¼	.012	.006	148.4	45	DS	Ex	6	16⅛	2	½	.025	21
22	Dodge D-5	WR		Con	4	19¾	1–3	N¼–¾	0–⅛	4½–5½		17Sr		Tu	RE	8⅛		Hy	R	No	Mo	CI	10	(d)	2	¼	.012	.006	148.4	45	DS	Ex	6	16⅛	2	½	.025	22
23	Duesenberg J	CL	Ross	Con	4		3	1	¼				Ow	I	RE		LH	Hy	R	Ben	Mo	CI	15	28¾	2¼	¼	.010		259.3	50	DS	Ex	7¾	16½	3	¼	.025	23
24	Ford V8-60	WR		Con	3.75		4½±½–9°	¼†–1°	⅛–⅜	8		17	Ow	I	RE	11.6	Own	Mec		No	Wo	CI	12	26½	1¾	.186			186.0	50	FW	In	12	26½	1¾	.186		24
25	Ford V8-85	WR		Con	4.2		4½±½–9°	¼†–1°	⅛–⅜	8		17	Ow	I	RE	8.2	Own	Mec		No	Wo	CI	12	26½	1¾	.186			186.0	50	FW	In	12	26½	1¾	.186		25
26	Graham Crusader 85	CL	Ross	Con	3		4½–5½	1	⅛–⅜	7½		16	Spi	I	RE	9¼	Own	Hy	R	No	Mo	Steel	9	18	1¾	¼			126.0	50	RS	In	9	18	1¾	¼		26
27	Graham Cavalier 95	CL	Ross	Con	3		4–4½	1	⅛–⅜	7½		17	Spi	I	RE	7	Own	Hy	R	No	Mo	Steel	9	18	1¾	¼			126.0	50	DS	Ex	6	17¾	2	½		27
28	Graham Supercharger 116	CL	Ross	Con	3		3–4	1	⅛–⅜	7½		17	Spi	I	RE	8⅜	Own	Hy	R	No	Mo	CI	11	23	1¾	¼			161.0	50	DS	Ex	6	17¾	2	½		28
29	Graham Supercharger 120	CL	Ross	Con	3		3–4	1	⅛–⅜	7½		17	Spi	I	RE	8⅜	Own	Hy	R	No	Mo	CI	11	23	1¾	¼			161.0	50	DS	Ex	6	17¾	2	½		29
30	Hudson 73	WR	Gem	Con	4.187	42.5	1–2	1–1½	0–.125	7.0	Sh	18	Ow	I	E	8.56	Ben	Hy	R	No	Mo	AS	10.06	22.12	1.75	.218	.010	.010	154.8	50	RS	In	10.06	22.12	1.75	.218	.010	30
31	Hudson 74-5-6-7	WR	Gem	Con	4.187	(f)	1–2	1–1½	0–.125	7.0	Sh	18	Ow	I	E	8.56	Ben	Hy	R	No	Mo	AS	11.06	23.93	1.75	.218	.010	.010	167.5	50	RS	In	11.06	23.93	1.75	.218	.010	31
32	La Salle V8, 37-50	WR	Sag		4½		¼–1	¼–1	13/16–1	4° 51′	Sh		No	No	No		Ben	Hy		No	Mo	Cen	12	25⅞	2	¼	.010	.010	220.0	45½	RS	In	12	25⅞	2	¼	.010	32
33	Lincoln-Zephyr	WR	Own	Con	4.92	22	4	¾	1/16	4		17	Ow	I	RE	9.5		Mec		No	Mo	Cla	12	23.9	1.75	.210			168.0	50.0	FW	In	12	23.9	1.75	.210		33
34	Lincoln V12	WR	Own	Con	4.33	(†)	1½	1	⅛–⅜	7½		18.6	Ow	I	RE	8.0		MVB		Yes	Mo	CI	15½	33.5	2½	¼			335.0	50.0	FW	In	15½	33.5	2½	¼		34
35	Nash Lafayette 400-3710	WR	Gem	Con		22′ 4½″	2½	1½	½*	7.0		18	Ow	I	RE	7⅝	Ben	Hy		No		CI	10 1/16		2		.010	.010	177.0	47.0	RS	In	10 1/16		2		.010	35
36	Nash Ambassador 6-3720	WR	Gem	Con		21⅝	2½	1½	½*	7.0		18	Ow	I	RE	7⅝	Ben	Hy		No		CI	10 1/16		2		.010	.010	177.0	47.0	RS	In	10 1/16		2		.010	36
37	Nash Ambassador 8-3780	WR	Gem	Con		22′ 7½″	2	1½	½*	7.0		18	Ow	I	RE	7⅝	Ben	Hy		No		CI	11 1/16		2½		.010	.010	215.8	47.0	RS	In	11 1/16		2½		.010	37
38	Oldsmobile F-37	WR	Sag	CP		18½	0–¾N	⅛–1	1/16–⅛	4′ 51 1/6″	Inl	18	No	No	No		Ben	Hy	R	No	MW	CI	11	21 1/16	1¾	¼	.010	.010	148.0	45.0	RS	In	11	21 1/16	1¾	¼	.010	38
39	Oldsmobile L-37	WR	Sag	CP		20.0	0–¾N	⅛–1	1/16–⅛	4′ 51 1/6″	Own	18	No	No	No		Ben	Hy	R	No	MW	CI	12	23.05	1¾	¼	.010	.010	162.0	45.0	RS	In	12	23.05	1¾	¼	.010	39
40	Packard Six	WR	Own	CP		19′ 2″	2½±½	1–±¼	⅛–±1/16	11½		18Sr	No	No	No			Hy	R	No	(a)	Cen	11	13	1¾	¼	.010	.010	168.0		RS	In	11	13	1¾	¼	.010	40
41	Packard 120-C	WR	Own	CP		19′ 6″	2–±½	1–±¼	⅛–±1/16	11½		18Sr	No	No	No			Hy	R	No	(a)	Cen	12	13	1¾	¼	.010	.010	182.0		RS	In	12	13	1¾	¼	.010	41
42	Packard Super Eight	WR	Own	CP	5	(l)	2½±½	1–±¼	⅛–±1/16	11½		18½Sr	No	No	No			Hy	R	No	(b)	Cen	12	13	2½	¼	.010	.010	260.0		RS	In	12	13	2½	¼	.010	42
43	Packard Twelve	WR	Own	CP	5	(c)	0–½	1–±¼	⅛–±1/16	11½		18½Sr	No	No	No		Ben	Hy	R	Yes	(a)	Cen	14	15 1/16	2¾	¼			330.0		RS	In	14	15 1/16	2¾	¼		43
44	Pierce-Arrow 1701	CL	Ross	Con		(k)	1¼	1	½	8.0	Sh	19½	Ow	I	RE		SW	Mec		Ben	Mo	CS	16	38	2¼	¼	.012	.012	342.0	45	RS	In	16	38	2¼	¼	.012	44
45	Pierce-Arrow 1702	CL	Ross	Con	3¾	(k)	1¼	1	½	8.0	Sh		Ow	I	RE		SW	Mec		Ben	Mo	CS	16	38	2¼	¼	.012	.012	342.0	45	RS	In	16	38	2¼	¼	.012	45
46	Pierce-Arrow 1703	CL	Ross	Con	3¾	24⅜	1¼	1	½	8.0	Sh		Ow	I	RE		SW	Mec		Ben	Mo	CS	16	38	2¼	¼	.012	.012	342.0	45	RS	In	16	38	2¼	¼	.012	46
47	Plymouth P-3	WR		Con	4	18¾	1–3	¼–¾	0–⅛	4½–5½		17Sr		Tu	RE	8⅛		Hy	R	No	Mo	AS	10	(d)	2	¼	.012	.006	148.4	45	DS	Ex	6	16⅛	2	½	.025	47
48	Plymouth P-4	WR		Con	4	20	1–3	¼–¾	0–⅛	4½–5½		17Sr		Tu	RE	7⅝		Hy	R	No	Mo	Cen	10	(d)	2	¼	.012	.006	148.4	45	DS	Ex	6	16⅛	2	½	.025	48
49	Pontiac De Luxe Six 37-26 CA	WR	Sag	CP		38′ 5″	¾N–1¼N	¾–1¼	0	4½–5	Inl	18	No	No	No		Ben	Hy	R	No	Mo	CN	12	23 1/16	1¾	¼	.010	.010	161	48	RS	In	12	23 1/16	1¾	¼	.010	49
50	Pontiac De L. Eight 37-28 CA	WR	Sag	CP		39′ 5″	¾N–1¼N	¾–1¼	0	4½–5	Inl	18	No	No	No		Ben	Hy	R	No	Mo	CN	12	23 1/16	1¾	¼	.010	.010	161	48	RS	In	12	23 1/16	1¾	¼	.010	50
51	Studebaker Dict. & Dict. Pl. 6	CL	Ross	CR	4		½ (r)	1½ (r)	⅛–1/16	(a)	Sh	18″	Ow	I	RE		LH	Hy	R	No	WM	Bc	11	19 11/16	1¾	¼	.010	.005	138	45	RS	In	11	19 11/16	1¾	¼	(e)	51
52	Studebaker President	CL	Ross	Da			N¼+½	½	1/16–⅛	5½	Sh	18″					LH	Hy	R	No	WM	Bc	12½	21 1/16	1¾	¼	.010	.005	150½	45	RS	In	11	21 1/16	1¾	¼	(e)	52
53	Terraplane 71	RT	Gem	Con	4.18	40.5	1–2	1–1½	0–½	7.0	Sh	17	Ow	I	E	8.56	Ben	Hy	R	No	Mo	AS	10.06	22.12	1.75	.218	.010	.010	154.8	50	RS	In	10.06	22.12	1.75	.218	.010	53
54	Terraplane 72	RT	Gem	Con	4.18	40.5	1–2	1–1½	0–⅛	7.0	Sh	17	Ow	I	E	8.56	Ben	Hy	R	No	Mo	AS	10.06	22.12	1.75	.218	.010	.010	154.8	50	RS	In	10.06	22.12	1.75	.218	.010	54
55	Willys 37	WG	Gem	Con	2¼	15½	3	2	3/32	7½	AHR	17	Ow	I	RE	7.0	Ben	Mec	R	No	Mo		10.20	9.00	19 1/16	1¾	1/16	.010	.010	134 1/16	55	RS	In	9.00	19 1/16	1¾	1/16	.010	55

*—Maximum †—Minimum
(a)—Primary US 714—Secondary US 589
AA—Automatic Adjustment
AHR—American Hard Rubber Co.
AS—Alloy Steel
(b)—Primary Marshall 1035—Secondary Marshall 600
Bc—Budd Composite Ben—Bendix
(c)—Mod. 1506, 24 ft.; 1507, 24½ ft.; 1508,25 ft. 8½ in.
Cen—Centrifuse CI—Cast Iron
Cla—Cast Iron Alloy
CIS—Cast Iron and Steel Composite
CL—Cam and Lever
CN—Chrome Nickel Iron
Col—Columbia Axle Co.
Con—Conventional Type
CP—Center Point Type CR—Cross Linkage
CS—Carbon Steel
(d)—Front 19½, Rear 17½
Da—Direct Action Type
D-DL—Double Drag Link DS—Drive Shaft
D-TR—Dual Tie Rod
(e)—Toe .010, Heel .005
E—Elliot Type Ex—External
(f)—Mod. 74 & 5-42½ ft.; Mod. 76 & 7-45 ft.
Fr—Front FW—All Four Wheels
(g)—Primary 12¼, Secondary 15
Gem—Gemmer (h)—Tow Out—Never In
Hy—Hydraulic I—I-Beam Type
In—Internal Inl—Inland
In, Sh—Inland or Sheller
(k)—138 WB-23¼ ft.; 144 WB-24½ ft.
(l)—Mod. 1500, 22 ft.; 1501, 23 ft. 3½ in.; 1502, 23 ft. 9 in.
LH—Lockheed Hydraulic
Mec—Mechanical Mo—Moulded
MVB—Mechanical with Vacuum Booster
MW—Molded-Primary, Woven-Secondary
N—Negative Ow—Own
(r)—Dict. Planer, caster—¼+½, camber ½
R—Rigid RE—Reverse Elliot
RS—Rear Service Brakes
RT—Roller Tooth
Sag—Saginaw Sh—Sheller
s—5½ on Dict., 9½ on Dict. Pl.
Spi—Spicer Sr—Steel—Rubber Covered
S-St—Semi Steel SW—Stewart-Warner
(t)—136 WB-24 ft., 145 WB-26 ft.
Tu—Tubular WG—Worm Gear
WM—Woven-Primary, Moulded-Secondary
WR—Worm and Roller
WS—Worm and Sector

AMERICAN GASOLINE MOTOR BUS CHASSIS

MAKE AND MODEL	GENERAL							ENGINE														TRANSMISSION			REAR AXLE		BRAKES				SPRINGS				Wheels	
			Tread (Ins.)			Tires Type and Size								Carburetor													Service		Hand		Front	Rear				
	Passenger Rating	Standard Wheelbase (Ins.)	Front	Rear	Chassis Weight (Lbs.)	Front	Rear	Make and Model	Number of Cylinders Bore and Stroke (Ins.)	Rated Horsepower (A.M.A. Rating)	Maximum Brake HP. at Specified R.P.M.	Maximum Torque at Specified R.P.M.	Valve Arrangement	Make	Size (Ins.)	Ignition System—Make	Generator and Starter—Make	Maximum Governed Speed M.P.H.	Clutch Make and Type	Make	No. of Forward Speeds	Universal Joints Number and Make	Make and Model	Ratio—to 1	Type and Operation	Lining Area (Sq. Ins.)	Type and Location	Lining Area (Sq. Ins.)	Length and Width (Ins.)	Length and Width (Ins.)	Front Axle-Make	Steering Gear—Make	Make	Number
A.C.F.....H-13	30	158	81¼	70¼	13000¢	9.75/20	9.00/20d	HaS.....130	6-4¼x5	43.30	124-2800	290-1000	I	Z-U	1¾	D-R	D-R	48.0	Spi-SP	Spi	3	2-Spi	Tim...58212	5.57	FA	623	E-Ds	160	56-3½	60-3½	Tim	Ro	HB	4
A.C.F.....H-15	32	188	81¼	70¼	13100¢	9.00/20	9.00/20d	HaS.....135	6-4½x5	48.60	135-2800	324-1000	I	Z-U	1¾	D-R	D-R	52.0	Spi-SP	Spi	3	2-Spi	Tim...58212	5.12	FA	623	E-Ds	160	56-3½	60-4	Tim	Ro	HB	4
A.C.F.....H-17	35	183¼	81¼	70¼	13700¢	9.75/20	9.00/20d	HaS.....135	6-4½x5	48.60	135-2800	324-1000	I	Z-U	1¾	D-R	D-R	48.0	Spi-SP	Spi	3	2-Spi	Tim...58212	5.57	FA	623	E-Ds	160	56-3½	60-4	Tim	Ro	HB	4
A.C.F.....H-9-P	36	245½	80⅜	72	18500¢	10.50/22	10.50/22d	HaS.....180	6-5x6	60.00	180-2200	472-1000	I	Z-U	2	D-R	D-R	66.0	Long-SP	Spi	4	2-Spi	Tim...59023	4.55	FA	795	E-Ds	220	54-3½	64-5	Tim	Ro	Bu	6
A.C.F.....H-9-S	40	235	81	74	16450¢	9.75/22	9.75/22d	HaS.....180	6-5x6	60.00	180-2200	472-1000	I	Z-U	2	D-R	D-R	46.0	Long-DP	Spi	3	2-Spi	Tim...59022	5.12	FA	850	E-Ds	220	54-3½	64-5	Tim	Ro	Bu	6
A.C.F.....H-16	42	210⅜	81¼	72	16400¢	10.50/20	9.75/20d	HaS.....180	6-5x6	60.00	180-2200	472-1000	I	Z-U	2	D-R	D-R	45.0	Long-DP	Spi	3	-Spi	Tim...59023	5.62	FA	780	E-Ds	220	60-4	64-5	Tim	Ro	HB	4
Day Elder....30B	33	244	....	....	6800	9.00/22	9.00/22d	Herc....RXC	6-4⅝x5¼	51.30	114-2000	350-1000	L	Z-D	1¾	D-R	D-R	45.0	B-L-SP	B-L	4	4-Spi	Tim. 59002W	Var	FA	....	E-Ds	.....	.....	.....	Tim	Ro	Bu	6
Fageol.....1350	18-21	151½	78	77	6000	7.50/20	7.50/20d	Wau....6BK	6-3¾x4¼	33.70	82-2800	188-1100	L	Z-U	1¼	D-R	D-R	....	Spi-SP	Spi	3	4-Spi	Tim...'56000	5.71	FH	398	E-Ds	59	60-3½	60-3½	Tim	Ro	Bu	6
Fageol.....2500	21-29	160½	78	77	6900	8.25/20	8.25/20d	Wau....6MK	6-4⅛x4¾	40.80	82-2200	257-800	L	Z-U	1¼	D-R	D-R	....	Spi-SP	Spi	3	4-Spi	Tim...56000	5.71	FH	398	E-Ds	59	60-3½	60-3½	Tim	Ro	Bu	6
Fageol.....3000	29-36	179	77¼	77	10200	9.00/20	9.00/20d	Wau...6SRK	6-4½x5⅛	51.30	108-2000	330-800	L	Z-U	1¾	D-R	D-R	....	Spi-SP	Spi	4	4-Spi	Tim....58000	6.14	FA	490	E-Ds	60	60-3½	60-3½	Tim	Ro	Bu	6
Fixible...16-C-77	16-20	201	58½	66½	.....	7.00/20	7.00/20d	Chev....1937	6-3½x3¾	29.50	78-3200	170-(h)	I	C-D	1¼	D-R	D-R	....	Chev-SP	Chev	4	3-Chev	Chev....1937	5.43	FHV	....	.....	.....	36-1¾	56-2½	Chev	Chev	Chev	6
Fixible...19-C-77	19-24	201	58½	66½	.....	7.00/20	7.00/20d	Chev....1937	6-3½x3¾	29.50	78-3200	170-(h)	I	C-D	1¼	D-R	D-R	....	Chev-SP	Chev	4	3-Chev	Chev....1937	5.43	FHV	....	.....	.....	36-1¾	56-2½	Chev	Chev	Chev	6
Mack.....CW	23-25	165	80¼	73⅞	.....	7.50/20	7.50/20d	Own.....BG	6-3⅝x5	31.60	90-3000	202-1000	L	S-U	1½	D-R	D-R	44.6	Own-SP	Own	3	2-Cle	Own.....CW	4.45°	FA	437	E-Ds	82	52-3	52-3	Own	Own	Own	6
Mack.....CQ	29-31	178	82	73	.....	9.00/22	9.00/22d	Own.....CF	6-4¼x5½	43.40	118-2400	310-1000	L	S-U	1¾	D-R	D-R	48.7	Own-SP	Own	3	2-Spi	Own.....CT	5.43°	FA	635	E-Ds	82	60-3½	60-4	Own	Own	Own	6
Mack.....CT	33-37	214	82	73	.....	9.00/22	9.00/22d	Own.....CT	6-4½x5½	48.60	125-2300	350-1000	L	S-U	1¾	D-R	D-R	48.7	Own-SP	Own	3	2-Spi	Own.....CT	5.43°	FA	635	E-Ds	82	60-3½	60-4	Own	Own	Own	6
Reo.....2LM7	16-21	142	77½	66½	4800	7.50/20	7.50/20d	Own.....S3	6-3⅜x5	27.34	83-2800	178-1300	L	C-D	1¼	D-R	D-R	55.0	B&B-SP	Own	4	3-Cle	Own.....	5.28	FHV	397	E-Tr	61¼	54-2½	54-2½	Own	Ro	MW	7
Reo.....2LMH7	21-25	142	77⅞	66½	4925	7.50/20	7.50/20d	Own.....S5	6-3⅝x5	31.50	87-2800	204-800	L	C-D	1½	D-R	D-R	55.0	Long-SP	Own	4	3-Cle	Own.....	5.28	FHV	397	E-Ds	88¼	54-2½	54-2½	Own	Ro	MW	7
Reo.....3P7	24-26	165	80⅛	74	6535	7.50/20	7.50/20d	Own.....S5	6-3⅝x5	31.50	101-2800	228-900	L	C	1¼	D-R	D-R	52.0	Long-SP	Own	4	4-Cle	Own.....	5.57	FA	506	E-Ds	103	53-3	53-3	Own	Ro	MW	7
Twin Coach..23R	23	178	82⅛	73⅛	9200¢	8.25/18	8.25/18d	Herc.JXDRT	6-4x4¼	38.40	92-2400	225	L	Z-U	...	D-R	D-R	Var	Spi-SP	Spi	3	2-Spi	Tim.....	6.07	FA	576	I-Ds	31.4	46-3	60-3	Tim	Ro	Bu	6
Twin Coach..30R	31	235½	81¾	74⅝	11000¢	9.00/18	8.25/20d	Herc.WXLRT	6-4¼x4¾	43.35	110-2400	290-1100	L	Z-U	...	D-R	D-R	Var	Spi-SP	Spi	3	2-Spi	Tim.....	6.10	FA	576	I-Ds	31.4	46-3	60-3	Tim	Ro	Bu	6
Twin Coach..37R	37	211½	82¾	75¼	13750¢	9.75/20	9.75/20d	Herc..RXCT	6-4⅝x5¼	51.34	126-2400	347-1000	L	Z-D	...	D-R	D-R	Var	Spi-SP	Spi	3	2-Spi	Tim.....	6.50	FA	576	I-Ds	61.0	60-4	60-4	Tim	Ro	Bu	6
Twin Coach..40R	41	239½	82¾	75¼	14600¢	9.75/20	9.75/20d	Herc..RXCT	6-4⅝x5¼	51.34	126-2400	347-1000	L	Z-D	1¾	D-R	D-R	Var	Spi-SP	Spi	3	2-Spi	Tim.....	6.50	FA	576	I-Ds	61.0	60-4	60-4	Tim	Ro	Bu	6
White.....706	.....	170 (1)	62⅛	64½	4635¢	7.00/20	7.00/20d	Own.....270	6-3⅛x4½	30.40	83-2800	195-1200	L	Z-D	1⅝	D-R	D-R	54.0	Own-SP	Own	4	3-Spi	Own....27C	6.86	FHV	368	E-Ds	83.5	39-2¼	54-2½	Own	Ro	Own	4
White.....706M	.....	170 (1)	75¼	64½	5800¢	7.50/20	7.50/20d	Own.....303	6-3⅛x4½	34.30	92-2800	215-1200	L	Z-D	1⅝	D-R	D-R	55.7	Own-SP	Own	3	3-Spi	Own....27C	6.86	FHV	368	E-Ds	83.5	41-2½	54-2½	Own	Ro	Own	4
White.....65A	.....	222 (3)	75⅛	71⅛	9150¢	9.00/20	9.00/20d	Own.....460	6-4⅛x5¼	44.60	123-2400	320-1200	I	Z-U	1¾	D-R	D-R	63.2	Own-SP	Own	4	4-Spi	Own.....11C	6.43	FA	554	I-Ds	82.0	46-3	60-3½	Own	Ro	Own	4
White..... 54	.....	240	75⅛	69⅛	10600¢	9.00/20	9.00/20d	Own.....580	6-4⅝x5¾	51.30	130-2300	385-1200	I	Z-U	2	D-R	L-N	62.8	Own-SP	Own	4	5-Spi	Own.....1C	5.63	FA	620	I-Ds	163.0	48-3	64-4	Own	Ro	Own	4
White.....54A	.....	250 (4)	75¼	69¾	11385¢	9.75/20	9.75/20d	Own.....580	6-4⅝x5¾	51.30	130-2300	385-1200	I	Z-U	2	D-R	L-N	64.7	Own-SP	Own	4	5-Spi	Own.....12C	5.63	FA	620	I-Ds	163.0	48-3	64-4	Own	Ro	Own	4
White.....684	.....	162	74½	69½	14500¢	9.75/20	7.50/24d	Own..505(m)	12-3⅛x3¾	68.30	145-2800	344-1200	L	(2)Z-D	1¼	D-R	D-R	54.0	Own-DP	Own	3	5-Spi	Own.....22C	7.17	FA	589	I-Ds	123.0	60-3½	60-3½	Own	Ro	Own	4
White.....686	.....	.....	80⅝	71¼	17000¢	9.75/22	9.75/22d	Own..505(m)	12-3⅛x3¾	68.80	145-2800	344-1200	L	(2)Z-D	1¼	D-R	D-R	56.8	Own-DP	Own	3	5-Spi	Own.....28C	7.17	FA	693	I-Ds	123.0	54-3½	60-4	Own	Ro	Own	4
Yellow Coach.733	21	160	69½	65	.....	7.50/18	7.50/18d	Chev....1937	6-3½x3¾	29.40	78-3200	170-(h)	I	C-D	...	D-R	D-R	....	GMT-SP	GMT	4	3-Spi	Tim..53526N	6.80	FHV	438	I-Rw	219.0	44-2½	54-2½	Tim	Sag	MW	6
Yellow Coach.722	21	179	69⅛	67⅞	.....	8.25/20	7.60/20d	GMT.....400	6-4½x5	40.90	112-2800	294-(n)	I	Z-U	1½	D-R	D-R	....	Long-SP	Spi	3	3-Spi	Tim56200DW	4.44	FA	614	I-Ds	44.4	54-3	54-3	Tim	Sag	MW	6
Yellow Coach.728	32	184	81¾	73½	.....	9.00/20	9.00/20d	GMT.....450	6-4⅝x5	45.90	120-2400	340-(p)	I	Z-D	1½	D-R	D-R	....	Long-SP	Sni	3	2-Spi	Tim..58272W	5.86	FA	703	E-Ds	100.0	59-3	58-4	Tim	Sag	MW	6
Yellow Coach.731	36	213⅞	81¾	73½	.....	9.75/20	9.75/20d	GMT.....450	6-4⅝x5	45.90	120-2400	340-(p)	I	Z	1½	D-R	D-R	....	Long-SP	Spi	3	2-Spi	Tim..58272W	7.10	FA	703	E-Ds	100.0	59-3	58-4	Tim	Sag	MW	6
Yellow Coach.732	.....	219	78¾	71¾	.....	10.50/20	10.50/20	GMT.....707	6-5x6	60.00	185-2150	560-1150	I	S-D	2	D-R	D-R	....	Long-SP	Spi	4	2-Spi	Tim..59031W	4.09	FA	812	E-Ds	125.6	58-4	62-4	Tim	Ro	MW	6
Yel.Ch.843C,859B	33	255	80¼	71	.....	10.50/22	10.50/22d	GMT.....707	6-5x6	60.00	185-2150	560-1150	I	S-D	2	D-R	D-R	....	Long-DP	Spi	4	5-Spi	Tim59017DW	4.09	FA	865	I-Ds	88.8	60-3½	72½-4	Tim	Ro	Bu	6

ABBREVIATIONS:
¢—Complete Vehicle Weights
²—Others also
(1)—Also 190 Wheelbase
(2)—Two used
(3)—Also 240 Wheelbase
(4)—Also 260 Wheelbase
B&B—Borg & Beck
B-L—Brown Lipe Bu—Budd
C—Carter Chev.—Chevrolet
Cle—Cleveland Steel Products
d—Dual Tires D—Downdraft
DP—Double Plate
D-R—Delco-Remy
E-Ds—External-Dr ve Shaft
E-Tr—External Transmission
FA—Four Wheel Air Operated
FH—Four Wheel Hydraulic
FHV—Four Wheel Hydraulic with Vacuum Booster
GMT—General Motors Truck
h—at 900 to 1000 R.P.M.
HaS—Hall-Scott
HB—Hoopes Bros.
Herc—Hercules Motors Corp.
I—In head (valves)
I-Ds—Internal Drive Shaft
I-Rw—Internal, Rear Wheels
L—at side—Ell head
L-N—Leece-Neville
(m)—Pancake Engine—Horisontal Opposed
MW—Motor Wheel
(n)—800-1600 R.P.M.
(p)—800-1200 R.P.M.
Ro—Ross S—Stromberg
Sag—Saginaw
SP—Single Plate
Spi—Spicer
Tim—Timken-Detroit Axle Co.
Tr—On transmission
U—Updraft
V—Vacuum Var—Various
Wau—Waukesha Motor Co.
Z—Zenith

Mechanical Specifications—American Trucks—1937

KEY TO ABBREVIATIONS AND REFERENCE MARKS

GENERAL

Make and Model—Only basic models are listed. Variations are available with most manufacturers.

Tonnage Rating—Where a spread of ratings is given the maximum ratings are for ideal operating conditions and the minimum for extremely difficult conditions; the ranges between are for varying operating conditions.

Chassis Price—Chassis price quoted applies to standard wheelbase with standard tires. All prices are F.O.B. factory.

(***)Prices ready next issue.

Gross Vehicle Weight—Is chassis weight stripped, plus body and cab weight, plus payload. Gross vehicle weight is based on maximum recommended tire size, not on tires listed as standard.

Chassis Weight Stripped—Is weight of standard chassis with standard equipment, with crankcase and cooling system full, and 5 gal. of gasoline in tank. Does not include weight of cab. Exceptions are noted.

Maximum Tire Size—Is furnished at extra cost, if the maximum differs from the standard tire size. Dual rears are understood except where otherwise noted.

Maximum Brake H.P. at Given R.P.M.—Is actual dynamometer reading without accessories.

Gear Ratio Range in High—Ratios within the range given are available at no extra cost. Exceptions are noted.

Tractors—Unless given the designation N (meaning not available as tractor), all standard models may be assumed to be available as tractors.

(D)—Diesel equipped.

(N)—Not available as tractor.

(T)—Specifically designed for tractor use only.

c.o.e.—Cab-over-engine design.

e.b.s.—Engine-between-seat design

e.u.s.—Engine-under-seat design

(2) **General Motors**—Tire size indicated in column "Maximum Tire Size Furnished" is maximum capacity dual tires recommended for normal operating conditions. T-16L and F-16L, ¾-1 ton, same as T-16 and F-16 respectively, except light riding springs and 4.57 to 1 gear ratio. T-16 to F-61H inclusive are also available for export only as coach chassis. Dual performance rear axles at extra cost for T-16 to T-46 inclusive and F-16 to F-46 inclusive. Double reduction rear axle at extra cost for T-33H, T-46, F-33H, and F-46. GMC "239" engine at price deduction for T-23 and F-23. GMC "256" engine at extra cost for T-23H and F-23H. GMC "400" engine group option at extra cost for T-46 and F-46. GMC "450" engine at extra cost for T-61, T-61H, F-61, and F-61H.

(3) **International Harvester**—Model C-10, ¾-ton, same as C-20 except less spring leaves. Model C-12, ¾ ton, same as C-30 except less rear spring leaves.

(*)**Reo**—Price includes cab and pick-up body.

(4) **Moreland**—Available with Diesel.

(5) **Stewart**—46H and 47H available with two-speed rear axle.

(6) **White**—Each model shown is furnished with different specifications for different tonnage ratings. (*)—Factory governed speed 2400 r.p.m.

(6a) **White**—Special prices for each installation.

(*) **White**—Tractor rating only.

(7) **Autocar**—Larger service brake areas on rear axles are provided when tires of 24" base are supplied.

(a) Price does not include auxiliary axle. Chassis weight includes auxiliary axle complete; area of brake lining and drum area do not include auxiliary rear axle.

(d) Models intended for dump or tractor service only.

(8) **Le Moon**—Models 306, 406, 506 and 610 are available as cab-over-engine models.

(9) **Willys**—Price includes body and complete equipment, and is complete price at Toledo.

(10) **Walker**—Frame lengths may be changed, within limits, to suit individual requirements, at no additional cost.

(11) **Biederman**—Will furnish Continental, Hercules, Waukesha and Lycoming engines at the buyer's option.

(12) **Hendrickson**—All models available in cab-over-engine design for slight additional charge.

(13) **Chevrolet**—Auxiliary Springs must also be used at an additional charge of $12.50.

(14) **Mack**—Prices available only upon application.

(a) **Mack**—Weights in Chassis Weight column are shipping weights which include weight of a chassis of medium standard wheelbase, cab, prevailing tire size and spare tire, ready for the road.

(*) **Mack**—Cab now included in list price.

(b) **Sterling**—Available with Diesel.

(c) **Sterling**—Available with Hesselman engine.

(15) **Schacht**—Available in E. B. S. design at additional cost.

MAKES—ALL

A LaF—American La France.
B—Bendix. **BL**—Brown-Lipe.
BO—Bendix front, Own rear.
Bu or Bud—Buda.
BW—Borg Warner
BWs—Bendix front, Westinghouse rear.
C or Col—Columbia.
Cat—Caterpillar **Cl or Cla**—Clark.
Co—Covert **Con**—Continental.
Cot—Cotta Gear.
Cum—Cummins-Diesel
DG—Detroit Gear and Machine.
Eat—Eaton. **Fu**—Fuller.
Her—Hercules. **L**—Lockheed.
Li—Lipe. **W. C.**
LO—Lockheed front, Own rear
LW—Lockheed front, Wisconsin rear.
Lyc—Lycoming.
O or Ow—Own.
Op or Opt—Optional
Shu—Shuler.
Spi—Spicer.
Ste or St—Sterling.
T or Tim—Timken.
TW—Timken-Wisconsin
TWH—Timken Wisconsin Herrington
WG—Warner Gear.
WH—Wisconsin Herrington.
W-Hes—Waukesha Hesselman.
Wau—Waukesha.
W or Wis—Wisconsin.
Ws—Westinghouse.

BRAKES—SERVICE

Location

2—Two Wheels, rear only.
2/4—Two-wheel brakes effective on all four wheels through driveshaft.
4/6—Brakes on four rear wheels effective on all wheels through driveshaft.
T/4—Brake on transmission effective on all four wheels through driveshaft.
4—Four Wheels, front and rear.
4r—Four Wheels, rear only.
6—Six Wheels, front and rear.

Type

I—Internal.
X—External.

Operation

A—Air.
D—Hydraulic and mechanical.
H—Hydraulic.
M—Mechanical.
V—Vacuum.

BRAKES—HAND

Location

C—Center of double propeller shaft.
2—Rear wheels.
4—Four wheels.
J—Jackshaft.
R—Worm or bevel gearshaft.
T—Transmission.
F—Driveshaft
P—Propeller shaft.

Type

D—Tru-Stop disk.
I—Internal.
X—External.

BRAKE DRUMS

Material

a—Cast alloy iron.
A—American Car Fdry.
C—Centrifuse.
D—Dayton.
E—Ermalite.
F—Furnace Iron.
G—Gunite.
H—Hunt Spiller.
N—Nickel Iron.
c—Cast iron.
p—Pressed steel.
P—Pressed steel.
s—Cast steel.
(Where a combination of any of the above is used, the first reference mark applies to the front and the second to the rear drums.)

FRAME

Type

I—"I" Beam.
C—Channel.
T—Channel tapered front and rear.
L—Channel reinforced with liner.
B—Channel reinforced with both liner and fishplate.
P—Channel reinforced with plate.
TL—Channel tapered front and rear reinforced with liner.
D—Drop Center.
Tf—Tapered front.
X—x-Braced.

GOVERNOR STANDARD

Y—Yes.
N—No.

REAR AXLE

Final Drive and Type

B—Bevel.
C—Chain.
D—Dead.
F—Full-floating.
2—Double Reduction.
S—Spiral bevel.
W—Worm.
w/2—Worm or Double Reduction Optional.
½—Semi-floating.
¾—Three-quarter floating.
(*) Ratios other than standard at extra cost.
(**) Only one ratio.

Drive and Torque

A—Radius Rods and Torque Arm.
B—Radius Rod and Torque Tube
H—Hotchkiss. (springs)
R—Radius Rods
T—Torque Arm.
U—Torque Tube.

WHEELS DRIVEN

2F—Forward unit of Rear Axle Group.
2R—Rear Unit of Rear Axle Group.
4R—Forward and rear units of Rear Axle Group.
4F—Front Axle and Forward unit of Rear Axle Group.
4FR—Front axle and rear unit of rear axle group.
6—All wheels.

FORMULAS

(For Transportation Engineering)

$$M.P.H. = \frac{\text{Miles Per Hour}\ R.P.M. \times D.}{336 \times F.G.R.}$$

M.P.H.=Miles per hour.
R.P.M.=Revolutions per minute.
D.=Effective tire diameter.
F.G.R.=Final gear ratio.

Grade Ability

GA=TE—RR.
GA=Grade ability.
TE=Tractive effort.
RR=Road resistance—.012 for hard surfaced roads.

Tractive Effort

$$TE = \frac{\text{in. lb. torque} \times F.G.R. \times EFF.}{G.V.W. \times R.}$$

EFF.=Efficiency—.90 for all rear axles except worm, then .85.
R.=Rolling radius.
G.V.W.=Gross vehicle weight.
in. lb. torque=12 x torque in lb. ft.

Torque in LB. FT.

Torque=.65 x cu. in. displacement. (This is approximate and should be used only when actual torque is not known.)

Cu. In. Displacement

D=B x B x .7854 x S x No. of Cyl.

AMA Horsepower Rating

$$AMA\ H.P. = \frac{B \times B \times No.\ of\ Cyl.}{2.5}$$

D=Cu. in. displacement.
B=Cylinder bore.
S=Cylinder stroke.

TIRE TABLE

(Tire and Rim Association, Inc.)

Balloon Tires

Size	Capacity (lb.)	Size	Capacity (lb.)
5.50/20	1225	9.75/15	3175
6.00/20	1400	9.75/18	3600
6.50/18	1550	9.75/20	3900
6.50/20	1700	9.75/22	4200
7.00/18	1800	9.75/24	4400
7.00/20	1950	10.50/20	4700
7.50/18	2025	10.50/22	5000
7.50/20	2200	10.50/24	5200
7.50/24	2500	11.25/20	5450
8.25/18	2450	11.25/22	5800
8.25/20	2650	11.25/24	6050
8.25/22	2850	12.00/20	6250
8.25/24	3025	12.00/24	6950
9.00/15	2650	12.75/20	7200
9.00/18	3000	12.75/24	8000
9.00/20	3250	13.50/20	8200
9.00/22	3500	13.50/24	9100
9.00/24	3650		

High Pressure Tires

30x5	1700	34x7	2800
34x5	1950	38x7	3200
32x6	1950	36x8	3600
(8-ply)		40x8	4000
32x6	2200	38x9	4500
(10-ply)		42x9	5000
36x6	2500	40x10	5500
32x7	2550	44x10	6000

Line Number	MAKE AND MODEL	GENERAL (See Keynote)						TIRE SIZES (D-dual rear S-single rear)		ENGINE DETAILS								Governor Standard	TRANSMISSION		REAR AXLE				FRONT AXLE	BRAKES						C-A Dimension (Std. W. B.)	FRAME	
		Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight with Max. Tires	Chassis Wt. (Stripped)	Standard Front and Rear	Maximum Tire Size Furnished	Make and Model	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Main Bearings: Number, Diameter and Length			Make and Model	Forward Spd's	Make and Model	Gear and Type	Drive & Torque	Gear Ratio Range in High	Make and Model	SERVICE: Make Location Type Operat'n	Lining Area	Drum Area	Drum Material	Hand Location Type		Side Rail Dimensions	Type
1	Autocar (7) (N) RM	.....	1980	164	182	18500	6715	7.50/20D	9.00/20	Own 315	6–3¾x4¼	315	5.5	210	78–2400	7–3x12⅝		Y	Own RL5	5	Own RL	2F	H	6.49–7.89	Tim 32502	LO4IDV	466	694	c	2I	84	8x2¾x¾	T
2	.....(N) RL	.....	2460	164	182	20000	6895	8.25/20D	9.00/20	Own 358	6–4x4¾	358	5.5	250	85–2300	7–3x12⅝		Y	Own RL5	5	Own RL	2F	H	6.49–7.89	Tim 32502	LO4IDV	466	694	c	2I	84	8‡x3x⅞	T
3	.....(N) D	.....	3600	164	182	25000	7565	9.00/20D	9.75/20	Own 358	6–4x4¾	358	5.5	250	85–2300	7–3x12⅝		Y	Own DF5	5	Own DFA	2F	H	6.49–7.89	Tim 35100	LO4IDV	580	930	c	FD	84	8‡x3x⅞	T
4	.....(N) DF	.....	4200	164	182	26500	8445	9.75/20D	10.50/20	Own 404	6–4¼x4¼	404	5.5	295	97–2200	7–3x14⅜		Y	Own DF5	5	Own N	2F	H	7.20–8.57	Tim 35100	LO4IDV	580	930	c	FD	84	9x3x¼	T
5	.....(N) N	.....	4500	164	218	28000	8705	9.75/20D	10.50/20	Own 404	6–4¼x4¼	404	5.5	295	97–2200	7–3x14⅜		Y	Own DF5	5	Own TF	2F	H	7.20–8.57	Tim 26450	LO4IDV	580	930	c	FD	119½	9x3x¼	T
6	.....(N) NFS	.....	5600	195	195	26000	10380	10.50/20D	10.50/20	Own 404	6–4¼x4¼	404	5.5	295	97–2200	7–3x14⅜		Y	Own TF5	5	Own TF	2F	H	7.20–8.57	Tim 35100	LO4IDV	580	930	c	FD	84	10⅜x3x¼	T
7	.....(N) NF	.....	5100	164	218	29500	9735	10.50/20D	10.50/24	Own 453	6–4½x4¾	453	5.5	333	108–2200	7–3x14⅜		Y															
8	.....(N) CF	.....	6000	172	203	30000	10300	36x7	36x7	Own 453	6–4½x4¼	453	5.5	333	108–2200	7–3x14⅜		Y	Own TF4	4	Own C	2F	R	7.20–9.43	Own SCH	O2IMV	502	930	c	FD	88½	9x3x¼	T
9	.....(N) TS	.....	6600	204	204	29740	11404	10.50/24D	10.50/24	Own 453	6–4½x4¼	453	5.5	333	108–2200	7–3x14⅜		Y	Own TF4	4	Own TG	2F	H	7.20–8.68	Tim 26452	TO4IA	659	1051	c	FD	129	10½x3x⅞	T
10	.....(N) T	.....	5850	182	218	36000	10485	10.50/20D	11.25/24	Own 501	6–4½x5¼	501	5.5	375	123–2200	7–3¼x14‡‡		Y	Own TF5	5	Own TG	2F	H	7.20–8.68	Tim 26452	TO4IA	631	930	c	FD	102	10⅜x3x¼	T
11	.....(T) RMT	.....	2180	142	164	28000	6835	8.25/20D	9.00/20	Own 315	6–3¾x4¼	315	5.5	210	78–2400	7–3x12⅝		Y	Own RL5	5	Own RL	2F	H	6.49–7.89	Tim 32502	LO4IDV	466	694	c	2I	62	8‡x3x⅞	T
12	.....(T) 1TR	.....	2595	142	164	32000	6875	8.25/20D	9.00/20	Own 358	6–4x4¾	358	5.5	250	85–2300	7–3x12⅝		Y	Own DF5	5	Own DFA	2F	H	6.49–7.89	Tim 32502	LO4IDV	466	694	c	2I	62	8‡x3x⅞	T
13	.....(T) 2TR	.....	4100	142	164	36000	7855	9.00/20D	9.75/20	Own 404	6–4¼x4¼	404	5.5	295	97–2200	7–3x14⅜		Y	Own DF5	5	Own N	2F	H	7.20–8.57	Tim 32502	LO4IDV	567	831	c	FD	68	8‡x3x⅞	T
14	.....(T) 3TR	.....	4800	148	164	40000	8375	9.75/20D	10.50/20	Own 453	6–4½x4¾	453	5.5	333	108–2200	7–3x14⅜		Y															
15	.....(T) 4TR	.....	4950	148	164	45000	9265	9.75/20D	10.50/20	Own 453	6–4½x4¾	453	5.5	333	108–2200	7–3x14⅜		Y	Own TF5	5	Own TF	2F	H	7.20–8.57	Tim 35000	LO4IDV	567	831	c	FD	68	8‡x3x⅞	T
16	.....(T) 5TR	.....	5700	148	164	50000	9655	10.50/20D	10.50/24	Own 501	6–4½x5¼	501	5.5	375	123–2200	7–3¼x14‡‡		Y	Own TF5	5	Own TG	2F	H	7.20–8.68	Tim 35100	TO4IA	580	930	c	FD	68	9x3x¼	T
17	.....(d) RLD	.....	2460	148	148	16000	6785	8.25/20D	9.00/20	Own 358	6–4x4¾	358	5.5	250	85–2300	7–3x12⅝		Y	Own RL5	5	Own RL	2F	H	6.49–7.89	Tim 32502	LO4IDV	466	694	c	2I	68	8‡x3x⅞	T
18	.....(d) DP	.....	3750	148	164	18000	7635	9.00/20D	9.00/20	Own 358	6–4x4¾	358	5.5	250	85–2300	7–3x12⅝		Y	Own DF5	5	Own DFA	2F	H	6.49–7.89	Tim 32502	LO4IDV	466	694	c	2I	68	8‡x3x⅞	T
19	.....(d) DH	.....	4550	148	164	23000	8535	9.75/20D	9.75/20	Own 404	6–4¼x4¾	404	5.5	295	97–2200	7–3x14⅜		Y	Own DF5	5	Own CGA	2F	H	7.13–7.89	Tim 35000	LO4IDV	567	831	c	2I	68	9x3x¼	T
20	.....(d) S	.....	5750	170	170	30000	10025	10.50/20D	10.50/24	Own 453	6–4½x4¾	453	5.5	333	108–2200	7–3x14⅜		Y	Own TF5	5	Own TF	2F	H	7.20–8.57	Tim 35100	LO4IDV	580	930	c	FD	90	10⅜x3x⅛	T
21	.....(d) C	.....	6650	170	170	44000	11385	10.50/24D	11.25/24	Own 501	6–4½x5¼	501	5.5	375	123–2200	7–3¼x14‡‡		Y	TF4-A3	12	Own CGA	2F	H	7.69–8.52	Tim 26452	LO4IDV	580	930	c	FD	90	10½x3x⅛	T
																			TF4-A3	12	Tim 79733	2F	H	8.59–10.12	Tim 27452	LT4IDV	688	1050	c	FD	90	10½x3x⅛	T
22	e.u.s. (N) UD	.....	3800	109	145	25000	7950	9.00/20D	9.75/20	Own 358	6–4x4¾	358	5.5	250	85–2300	7–3x12⅝		Y	Own UDF5	5	Own DF	2F	H	6.49–7.89	Tim 35100	LO4IDV	466	694	c	2I	84¼	8x3x¼	T
23	e.u.s. (N) UDF	.....	4550	109	145	26500	8540	9.75/20D	10.50/20	Own 404	6–4¼x4¾	404	5.5	295	97–2200	7–3x14⅜		Y	Own UDF5	5	Own DFA	2F	H	6.49–7.89	Tim 26452	LO4IDV	580	930	c	FD	84¼	8x3x¼	T
24	e.u.s. (N) UN	.....	5000	109	163	28000	9070	9.75/20D	10.50/20	Own 404	6–4¼x4¾	404	5.5	295	97–2200	7–3x14⅜		Y	Own UDF5	5	Own C & N	2F	H	7.20–8.57	Tim 26452	LO4IDV	580	930	c	FD	84¼	8x3x¼	T
25	e.u.s. (N) UNFS	.....	5600	145	145	27000	9585	10.50/20D	10.50/20	Own 404	6–4¼x4¾	404	5.5	295	97–2200	7–3x14⅜		Y	Own UDF4	4	Own TF	2F	H	7.20–8.57	Tim 26452	B4IMV	637	930	c	FD	120¼	9x3x¼	T
26	e.u.s. (N) UNF	.....	5400	128	163	29500	9780	10.50/20D	10.50/24	Own 453	6–4½x4¾	453	5.5	333	108–2200	7–3x14⅜		Y	Own UTF5	5	Own TF	2F	H	7.20–8.57	Tim 26452	LO4IMV	580	930	c	FD	103¼	9x3x¼	T
27	e.u.s. (N) UTS	.....	5600	145	145	29900	10927	10.50/24D	10.50/24	Own 453	6–4½x4¾	453	5.5	333	108–2200	7–3x14⅜		Y	Own UTF4	4	Own TG	2F	H	7.20–8.68	Tim 26452	TO4IA	631	930	c	FD	120¼	10½x3x⅛	T
28	e.u.s. (N) UT	.....	5900	128	163	36000	10440	10.50/20D	10.50/24	Own 501	6–4½x5¼	501	5.5	375	123–2200	7–3¼x14‡‡		Y	Own UTF5	5	Own TG	2F	H	7.20–8.68	Tim 26452	TO4IA	631	930	c	FD	103¼	9x3x¼	T
29	e.u.s. (T) 1UTR	.....	3850	98	109	32000	7140	8.25/20D	9.75/20	Own 358	6–4x4¾	358	5.5	250	85–2300	7–3x12⅝		Y	Own UDF5	5	Own DF	2F	H	6.49–7.89	Tim 35000	LO4IDV	466	694	c	2I	73¼	8x3x¼	T
30	e.u.s. (T) 2UTR	.....	4650	98	109	36000	8750	9.00/20D	9.75/20	Own 404	6–4¼x4¾	404	5.5	295	97–2200	7–3x14⅜		Y	Own UDF5	5	Own C	2F	H	7.20–9.43	Tim 35000	LO4IDV	567	831	c	FD	73¼	8x3x¼	T
31	e.u.s. (T) 3UTR	.....	5200	98	109	40000	8900	9.75/20D	10.50/20	Own 453	6–4½x4¾	453	5.5	333	108–2200	7–3x14⅜		Y	Own UDF5	5	Own C	2F	H	7.20–9.43	Tim 35000	LO4IDV	567	831	c	FD	73¼	8x3x¼	T
32	e.u.s. (T) 4UTR	.....	5450	98	109	45000	9200	9.75/20D	10.50/20	Own 453	6–4½x4¾	453	5.5	333	108–2200	7–3x14⅜		Y	Own UTF5	5	Own CG	2F	H	7.69–8.52	Tim 26452	TO4IA	631	930	c	2I	73¼	8x3x¼	T
33	e.u.s. (T) 5UTR	.....	5900	98	109	50000	9790	10.50/20D	10.50/24	Own 501	6–4½x5¼	501	5.5	375	123–2200	7–3¼x14‡‡		Y	Own UTF5	5	Own C	2F	H	7.20–9.43	Tim 26452	LO4IDV	580	930	c	FD	95¼	8x3x¼	T
34	e.u.s. (d) UDP	.....	4400	100	100	23000	8410	9.00/20D	9.75/20	Own 358	6–4x4¾	358	5.5	250	85–2300	7–3x12⅝		Y	Own UDF5	5	Own CGA	2F	H	7.69–8.52	Tim 26452	LO4IDV	580	930	c	FD	95¼	9x3x¼	T
35	e.u.s. (d) US	.....	5850	120	120	31000	10240	10.50/20D	10.50/24	Own 453	6–4½x4¾	453	5.5	333	108–2200	7–3x14⅜		Y	Fu	5	Own CGA	2F	H	7.69–8.52	Tim 26452	LO4IDV	580	930	c	FD	95¼	9x3x¼	T
† 36	Available....P-105	¾–1	845	Op	Op	8500	2425	6.50/18D	6.50/20	Wau FC	4–3¼x4	133	5.8	98	36–2800	3–2½x4		N	WG T9	4	Tim 53508	SF	H	** 6.6	Tim 30000H	L4IH	250	366	a	TX	Opt	4x2x¼	D
† 37	.....P-106	1–1½	940	Op	Op	8500	2675	6.50/18D	6.50/20	Wau ZKA	6–3⅜x4⅛	221	5.6	154	66–2900	4–2⅝x5½		N	WG T9	4	Tim 53508	SF	H	** 6.6	Tim 30000H	L4IH	250	366	a	TX	Opt	8x2½x¼	D
† 38	.....X-110	1½	1125	Op	Op	11500	3600	6.50/20D	7.50/20	Wau ZKA	6–3⅜x4⅛	221	5.6	154	66–2900	4–2⅝x5½		N	WG T9	4	Tim 53508	SF	H	** 6.6	Tim 30000H	L4IH	269	376	a	TX	Opt	10x2½x¼	T
† 39	.....X-120	1½–2	1370	Op	Op	12500	4000	6.50/20D	7.50/20	Wau BL	6–3½x4¼	245	5.4	165	73–3000	7–2⅝x10¼		N	WG T9	4	Tim 53300	SF	H	** 6.6	Tim 30000H	L4IH	330	582	a	TX	Opt	10x2½x¼	T
† 40	.....X-170	2½	1780	Op	Op	15000	4800	7.50/20D	8.25/20	Wau BL	6–3½x4¼	245	5.4	165	73–3000	7–2⅝x10¼		N	WG T9	4	Tim 54411	SF	R	** 6.8	Tim 31000H	L4IH	330	582	a	TX	Opt	10x2½x¼	T
† 41	.....X-210	2½	1890	Op	Op	15000	4850	7.50/20D	8.25/20	Wau BK	6–3¾x4¼	282	5.4	188	85–3200	7–2⅝x10¼		Y	Fu 5-A-330	5	Tim 54411	SF	R	** 6.8	Tim 31000H	L4IH	330	582	a	TX	Opt	12x2½x¾	T
† 42	.....X-240	3–3½	2175	Op	Op	19000	5500	8.25/20D	9.00/20	Wau BK	6–3¾x4¼	282	5.4	188	85–3200	7–2⅝x10¼		Y	Fu 5-A-430	5	Tim 56410	SF	R	** 7.4	Tim 32502H	L4IH	376	660	a	TD	Opt	12x2½x¾	T
† 43	.....X-300	4	3025	Op	Op	20700	7000	9.00/20D	9.75/20	Wau 6-110	6–4x4¼	358	5.1	254	110–2800	7–2¼x12½		Y	Fu 5-A-430	5	Tim 58205	SF	R	** 7.8	Tim 33000H	L4IHV	462	768	a	TD	Opt	14x3x⅛	T
† 44	.....X-400	5	4125	Op	Op	26500	8200	9.75/20D	9.75/20	Wau 6-125	6–4⅜x5⅛	462	5.0	324	125–2600	7–3x13¼		Y	Fu 5-A-620	5	Tim 65725H	WF	R	** 8.50	Tim 35000H	L4IHV	462	768	a	TD	Opt	14x3x⅛	T
† 45	Biederman (11)..10	1	1095	145	157	10000	3100	7.00/20S	8.25/20S	Con 25A	6–3½x4	215	4.9	142	70–2800	4–2½x6¼		Y	War T9	4	Cla B373	BF	R	5.1–6.4	Cla F212	L4IH	312	424	G	TX	54	7x3x⅛	T
† 46	20	1½	1295	157	180	11400	3800	7.00/20D	8.25/20	Wau 6BL	6–3½x4¼	245	5.2	162	75–2800	7–2⅝x10¼		Y	War T9	4	Cla B373	BF	R	5.1–6.4	Cla F212	L4IH	312	424	G	TX	82	7x3x⅛	T
† 47	30	2	1560	166	190	14000	4800	7.50/20D	9.00/20	Wau 6BL	6–3½x4¼	245	5.2	162	75–2800	7–2⅝x10¼		Y	Fu 5-A-29	4	Cla B373	BF	R	5.6–6.4	Cla F308	L4IH	458	556	G	TX	82	7½x3x¼	T
† 48	40	2½	1750	180	200	15000	5500	8.25/20D	9.00/20	Wau 6BK	6–3¾x4¼	282	5.0	190	84–2800	7–2⅝x10¼		Y	Fu 5-A-29	5	Cla B613	BF	R	5.6–6.4	Cla F308	L4IH	458	556	G	TX	105	7½x3x¼	T
† 49	50	3	2205	180	200	16000	6800	8.25/20D	9.00/20	Con E601	6–3⅞x4½	318	4.6	205	88–2600	7–2¾x12‡‡		Y	Fu 5-A-38	5	Cla B805	BF	R	5.7–7.2	Cla F318	L4IH	490	660	G	PX	105	8x3x¼	T
† 50	60	3½	2750	180	210	20000	7100	9.00/20D	10.50/20	Con E602	6–4½x4½	360	4.5	240	92–2600	7–2¾x12‡‡		Y	Fu 5-A-38	5	Wis 1237	2F	R	7.0–9.4	Tim 35100	W84IA	616	836	G	PX	76	9x3x¼	T
† 51	70	5	3600	157	210	24000	7530	9.75/20D	10.50/20	HerWXC3	6–4¾x4½	361	4.7	265	98–2500	7–2¾x12‡‡		Y	Fu 5-A-53	5	Wis 1737	2F	R	6.0–9.2	Tim 26450	W84IA	616	836	G	PX	103	10x3x⅛	T
† 52	80	7½	4200	187	210	30000	8500	10.50/20D	12.00/22	Her RX8	6–4½x5¼	500	4.9	330	110–2200	7–3x12¾		Y															
† 53	Brockway.....78	1½–2	895	138	164	.....	3965	6.00/20D	32x6	Con 24B	6–3⅞x4¼	210	5.7	154	71–3100	4–2¼x6		N	WG T9	4	Tim 53521H	SF	H	5.66–6.6	Tim 30000H	L4IH	255	402	a	TX	65	7‡x3x⅛	T
† 54	87	2–2½	1240	144	176	.....	4435	6.50/20D	7.50/20	Con 25B	6–3⅞x4¼	248	5.7	170	78–3100	7–2⅝x10⅛		N	WG T9	4	Tim 53521H	SF	H	5.66–6.6	Tim 30000H	L4IHV	255	402	a	TX	71	7‡x3x⅛	T
† 55	88	2–2½	1290	150	176	.....	4500	6.50/20D	7.50/20	Con 25B	6–3⅞x4¼	248	5.7	171	84–3250	4–2¾x6¾		N	WG T9	4	Tim 53307H	SF	H	6.2 –6.8	Tim 30000H	L4IHV	300	477	a	TX	71	7‡x3x⅛	T
† 56	.....90X	2½–3	1470	150	176	.....	4635	7.00/20D	34x7	Con 25B	6–3⅞x4¼	248	5.3	170	78–3100	7–2⅝x10⅛		N	WG T9	4	Tim 54411H	SF	H	5.83–6.8	Tim 31000H	L4IHV	302	528	a	TX	77	7‡x3x⅛	T
† 57	92	3	1560	150	188	.....	4700	7.00/20D	8.25/20	Con 25B	6–3⅞x4½	244	5.7	171	84–3250	4–2¾x6¾		N	WG T9	4	Tim 54411H	SF	H	5.83–6.8	Tim 31000H	L4IHV	329	580	a	CD	83	8x3x¼	T
† 58	94	3–4	1850	156	188	.....	5050	7.50/20D	8.25/20	Con 25B	6–3⅞x4½	244	5.7	171	84–3250	4–2¾x6¾		N	BL B341	4	Tim 56410H	SF	H	6.16–7.4	Tim 31000H	L4IHV	302	528	a	CD	83	7‡x3x⅛	T
† 59	96	2½–3	1740	156	176	.....	5150	7.50/20D	8.25/20	Con 29B	6–3⅞x4½	288	5.4	192	78–2650	7–2¾x13		N	BL B341	4	Tim 53307H	SF	H	5.83–6.8	Tim 31000H	L4IHV	329	580	a	CD	83	8x3x¼	T
† 60	110	3	1900	156	188	.....	5490	7.50/20D	8.25/20	Con 29B	6–3⅞x4½	288	5.4	192	78–2650	7–2¾x13		N	BL B341	4	Tim 54411H	SF	H	5.83–6.8	Tim 31000H	L4IHV	329	580	a	CD	91	8x3x¼	T
† 61	.....125X	3	2075	164	206	.....	5570	7.50/20D	8.25/20	Con 31B	6–3⅞x4½	318	5.5	214	86–2600	7–2¾x13		N	BL B341	4	Tim 56410H	SF	R	6.16–7.4	Tim 32505H	L4IHV	329	580	a	CD	91	8x3x¼	T
† 62	130	3–4	2245	164	206	.....	6270	8.25/20D	9.00/20	Con 29B	6–3⅞x4½	288	5.4	192	78–2650	7–2¾x13		N	BL B341	4	Tim 56410H	SF	R	6.16–7.4	Tim 32505H	L4IHV	329	580	a	CD	103	8x3x¼	T
† 63	145	3–4	2385	176	206	.....	6390	8.25/20D	9.00/20	Con 31B	6–3⅞x4½	318	5.5	214	86–2600	7–2¾x13		N	BL B341	4	Tim 56410H	SF	R	6.16–7.4	Tim 32505H	L4IHV	329	580	a	CD	103	8x3x¼	T
† 64	.....150X-4	3½–4	2680	176	206	.....	6520	8.25/20D	9.00/20	Con 32B	6–4¼x4½	361	5.4	252	95–2500	7–2⅝x13		Y	BL 3241	4	Tim 56410H	SF	R	5.71–7.4	Tim 32505H	L4IHV	329	580	a	CD	103	8x3x¼	T
† 65	.....150X-5	3½–4	2710	176	206	.....	6570	8.25/20D	9.00/20	Con 32B	6–4½x4½	361	5.4	252	95–2500	7–2⅝x13		Y	Fu 5-A-43	5	Tim 56410H	SF	R	5.71–7.4	Tim 32505H	L4IHV	329	580	a	CD	103	8x3x¼	T
† 66	120	2½–3	2260	156	188	.....	5800	7.50/20D	8.25/20	Con 30B	6–4x4½	311	4.2	203	85–2500	7–2¼x13		N	BL 314	4	Tim 54300H	SF	H	4.86–5.83	Tim 32505H	L4IH	329	580	a	CD	69	8x3x¼	T
† 67	140	3–3½	2850	156	200	.....	6385	8.25/20D	9.00/20	Con 30B	6–4x4½	311	4.2	203	85–2500	7–2¼x13		Y	BL 314	4	Wis 5000L	2F	R	6.00–7.35	Tim 32505H	L4IHV	329	580	a	CD	83	8x3x¼	T
† 68	141	3½–4	3355	170	200	.....	7450	9.00/20D	9.75/22	Con 30B	6–4x4½	311	4.2	203	85–2500	7–2¼x13		Y	BL 314	4	Wis 72000	2F	R	6.28–8.00	Shu 15685B1	L4IHV	396	663	a	CD	91	8x3x¼	T
† 69	.....130-P8	4–4½	2525	164	206	.....	6250	34x7D	9.00/20	Con 29-B	6–3⅞x4½	288	5.4	192	78–2650	7–2¾x13		N	Fu 5-A-43	5	Tim 56200H	SF	R	6.16–7.4	Tim 32505H	L4IHV	329	580	a	CD	83	8½x3x⅛	T
† 70	.....160X	4–5	3295	153	219	.....	7350	9.00/20D	9.75/22	Con 32B	6–4½x4¼	361	5.4	252	95–2500	7–2⅝x13		Y	Fu 5-A-43	5	Tim 58205H	SF	R	6.14–7.8	Shu 15685B1	L4IHV	396	663	a	CD	83	8½x3x⅛	T
† 71	.....170X	4–5	3640	153	219	.....	7960	9.00/20D	9.75/22	Con 33B	6–4½x4¾	381	4.4	276	106–2600	7–2¾x13		Y	Fu 5-A-62	5	Wis 72000L	2F	R	5.00–8.40	Shu 15685B1	L4IHV	396	663	a	CD	83	8½x3x⅛	T
† 72	.....165X	5–7	3795	153	219	.....	8150	9.75/20D	10.50/22	Con 32B	6–4¼x4½	361	5.4	252	95–2500	7–2⅝x13		Y	Fu 5-A-62	4	Wis 1337BH	2F	R	5.63–8.59	Shu 15685B1	L4IHV	484	772	a	CD	83	8¼x3x⅛	T
† 73	.....175X	5–7½	4290	153	219	.....	8550	9.00/20D	10.50/22	Con 34B	6–4¾x4¾	427	4.2	308	118–2600	7–2¾x13		Y	Fu 5-A-62	5	Wis 1337BH	2F	R	5.63–8.59	Shu 15685B1	L4IHV	484	772	a	CD	83	8¼x3x⅛	T
† 74	.....195X	5–7½	4230	153	219	.....	8650	9.75/20D	10.50/22	Con 33B	6–4¼x4¾	381	4.4	276	106–2600	7–2¾x13		Y	Fu 5-A-62	5	Wis 1757H	2F	R	6.42–8.5	Shu 15685B1	L4IHV	484	772	a	CD	83	8¼x3x⅛	T
† 75	.....220X	7½–10	4930	153	219	.....	9050	10.50/20D	11.25/24	Con 34B	6–4¾x4¼	427	4.2	308	118–2600	7–2¾x13		Y	Fu 5-A-62	5	Wis 1337BH	2F	R	5.63–8.59	Shu 15685B1	L4IHV	484	772	a	CD	83	8¼x3x⅛	T
† 76	.....240X	6–7½	5130	153	219	.....	8590	9.75/20D	10.50/24	Con 35B	6–4½x5¼	501	4.3	364	135–2200	7–2¾x13		Y	MHU	5	Wis 1757H	2F	R	6.42–8.5	Shu 15695B1	Lw4IDV	531	899	a	CD	122	8¼x3x⅛	T
† 77	.....260X	10	6030	195	219	.....	9720	10.50/22D	11.25/24	Con 35B	6–4½x5¼	501	4.3	364	135–2200	7–2¾x13		Y	MHU	5	Wis 1757H	2F	R	6.42–8.5	Shu 15695B1	W84IA	560	867	a	CD	68	10x3x⅛	T
† 78	.....260S	10	6380	195	219	.....	10000	10.50/24D	11.25/24	Con 35B	6–4½x5¼	501	4.3	364	135–2200	7–2¾x13		Y	BL 7351	5	Wis 1910W	2F	R	7.16–10.0	Tim 27452A1	W84IA	560	867	a	CD	122	8¼x3x⅛	T
† 79	.....V-1200	15	10500	156	240	.....	12400	11.25/22D	11.25/24	▲ LaF V12	12–4¼5	753	5.1	505	240–2800	4–3½x9¼		Y															

♦80	Chevrolet . Mas. GC	½	360	112	112	....	2190	6.00/16S	7.50/15S	Own	6-3½x3¾	216	6.2	170	78-3200	4-2⅜x5 1/16	N	Own	3	Own	S½	U	4.11-3.82	Own	O41H	158	288	c	2I	38½	5¾x2¼x5/32	C
♦81	....Mas. SA	1½	500	131	131	....	3050	6.00/20†S	32x6†S	Own	6-3½x3¾	216	6.2	170	78-3200	4-2⅜x5 1/16	N	Own	4	Own	SF	U	5.43-6.17	Own	O41H	330	532	P	2I	57¾	7x2¾x5/32	C
82	....Mas. SB	1½	520	131	131	....	3120	6.00/20D	32x6	Own	6-3½x3¾	216	6.2	170	78-3200	4-2⅜x5 1/16	N	Own	4	Own	SF	U	5.43-6.17	Own	O41H	330	532	P	2I	57¾	7x2¾x5/32	C
♦83	....Mas. Sp. SB	1½	615	131	131	....		6.50/20†D	32x6	Own	6-3½x3¾	216	6.2	170	78-3200	4-2⅜x5 1/16	N	Own	4	Own	SF	U	5.43-6.17	Own	O41H	330	532	P	2I	57¾	7x2¾x5/32	C
♦84	....Mas. SC	1½	525	157	157	....	3075	6.00/20†S	32x6†S	Own	6-3½x3¾	216	6.2	170	78-3200	4-2⅜x5 1/16	N	Own	4	Own	SF	U	5.43-6.17	Own	O41H	330	532	P	2I	83¼	7x2¾x5/32	C
85	....Mas. SD	1½	545	157	157	....	3200	6.00/20D	32x6	Own	6-3½x3¾	216	6.2	170	78-3200	4-2⅜x5 1/16	N	Own	4	Own	SF	U	5.43-6.17	Own	O41H	330	532	P	2I	83¼	7x2¾x5/32	C
86	....Mas. Sp. SD	1½	640	157	157	....	....	6.50/20†D	32x6	Own	6-3½x3¾	216	6.2	170	78-3200	4-2⅜x5 1/16	N	Own	4	Own	SF	U	5.43-6.17	Own	O41H	330	532	P	2I	83¼	7x2¾x5/32	C
87																																
88	Clydesdale...34-D	1½	2795	140	180	11000	3550	6.00/20S	8.25/20	Bud 4LD196	4-3⅝x4¾	196	...	130	55-2200	5-3x7¾	Y	War T9	4	Cla R750	SF	H	5.56-35.0	Cla F266	L41H	256	448	A	TX	64	8x2¼x5/32	T
89	..........40-D	2	2945	140	180	12000	3650	6.50/20D	8.25/20	Her DJXB	6-3½x4½	260	...	179	77-2600	7-3x10 5/16	Y	BL 2341	5	Tim 53300H	SF	H	6.2-39.3	Tim 31000H	L41H	264	452	A	TX	64	8x2¼x5/32	T
90	(D).......70D	2½-3	3865	140	200	14000	3650	7.00/20D	9.00/20	Her DJXB	6-3½x4½	260	...	179	77-2600	7-3x10 5/16	Y	Cla 200V	5	Tim 54400	SF	H	6.8-41.2	Tim 31000H	L41HV	328	528	A	TX	64	9x2¼x¼	T
91	(D).......75D	3-3½	4265	140	210	16000	3865	7.50/20D	9.00/20	Bud 6LD275	6-3¾x4¾	275	...	275	200-2600	7-3x11½	Y	Cla 200V	5	Tim 56410H	SF	H	6.16-37.3	Tim 31000H	L41HV	338	578	A	TX	64	9x2¼x¼	T
92	(D).......80D	3-4	5560	140	210	20000	5500	8.25/20D	9.75/20	Bud 6LD315	6-3¾x4¾	275	...	275	220-2600	7-3x11½	Y	Cla 200V	5	Tim 58205H	SF	R	5.75-46.7	Tim 32501H	L41HV	384	656	A	CD	69	10x2¾x¼	T
93	(D).......90D	4-6	5885	140	210	24000	6600	9.00/20D	10.50/20	Bud 6LD415	6-4x5½	415	...	305	105-2200	7-3x11½	Y	Cla 270V	5	Tim 75733H	SF	R	6.2-50.4	Tim 33000H	L41HV	384	656	A	CD	69	10x2¾x¼	T
94	(D).......105D	5-7	6850	145	220	28000	7300	9.75/20D	10.50/20	Bud 6LD468	6-4¼x5½	468	...	342	118-2200	7-3x11½	Y	Fu 5A620	5	Wis 1337BH	W/2	R	7.3-51.1	Tim 35100	L41HV	520	860	A	CD	69	12x2¾x¼	T
95	(D).......125D	7-10	8925	145	220	35000	8600	10.50/20D	12.00/20	Her DRXB	6-4⅝x5¼	474	...	350	125-2200	7-3x11½	Y	Fu 5A620	5	Wis 1737K	W/2	R	7.8-54.9	Tim 26450	Ws41A	570	860	A	CD	69	12x3x5/16	T
96	Condor....ACW-1	1½-2½	1565	136	220	11500	3300	6.00/20S	7.50/20	W-HES XBKH	4-3¾x4¾	210	6.2	125	41-2100	3-2¼x5⅝	Y	WG T9	4	Cla R750	SF	H	5.1-6.8	Cla F266	L41H	256	432	a	TX	55	7 5/16x2⅝x5/32	T
97	.........BCW-1	2-3½	1635	136	220	13000	3650	6.00/20S	8.25/20	W-HES XBKH	4-3¾x4¾	210	6.2	125	41-2100	3-2¼x5⅝	Y	WG T9	4	Tim 53300	SF	H	4.57-6.6	Cla F266	L41H	276	442	a	TX	55	7 5/16x2⅝x5/32	T
98	.........CCW-1	2½-4	1850	136	220	14000	4000	6.00/20S	34x7	W-HES XBKH	4-3¾x4¾	210	6.2	125	41-2100	3-2¼x5⅝	Y	WG T9	4	Tim 54411	SF	H	4.12-6.8	Cla F266	L41H	360	568	a	TX	55	10x2¾x11/32	P
99	.........FCW-1	2-3½	2160	136	220	13000	3900	6.00/20S	8.25/20	W-HES 6BKH	6-3¾x4¼	282	6.4	185	75-2500	7-2⅝x10¼	Y	Cla 185F	4	Tim 53300	SF	H	4.57-6.8	Cla F266	L41H	276	442	a	TX	55	7 5/16x2⅝x5/32	T
100	.........GCW-1	3-4½	2525	136	220	15000	4100	6.50/20D	34x7	W-HES 6BKH	6-3¾x4¼	282	6.4	185	75-2500	7-2⅝x10¼	Y	Cla 185F	4	Tim 54411	SF	H	4.12-6.8	Tim 31000	L41HV	388	578	a	TX	55	10x2¾x11/32	P
101	.........CDW-1	3½-5	2955	136	220	18000	5450	7.00/20D	9.75/20	W-HES 6BKH	6-3¾x4¼	282	6.4	185	75-2500	7-2⅝x10¼	Y	Cla 200V	5	Tim 56410	SF	H	4.44-7.4	Tim 31000	L41HV	388	578	a	TX	55	10x2¾x11/32	P
102	.........CEW-1	4-5½	3175	136	220	20000	5850	7.50/20D	10.50/20	W-HES 6BKH	6-3¾x4¼	282	6.4	185	75-2500	7-2⅝x10¼	Y	Cla 200V	5	Tim 58200	SF	H	5.25-7.8	Tim 32500	L41HV	436	660	a	TX	55	10x2¾x11/32	P
103	Corbitt.......12B	1½-2	1095	158	183	.....	3400	6.50/20D	7.50/20	Wau 6BL	6-3¼x4¼	245	5.4	165	72-3200	7-2⅛x10¼	N	WG T-9	4	Tim 53615H	SF	H	5.14-6.6	Tim 114F	L41H	253	380	a	TX	76	6½x2¾x¼	T
104	.............14B	1½-2	1665	159	205	.....	4200	7.50/20D	8.25/20	Wau 6BK	6-3¾x4¼	282	5.4	185	85-3200	7-2⅛x10¼	N	Cla B-116	4	Tim 54400H	SF	H	5.8-6.8	Tim 134F	L41H	253	380	a	TX	76	8x3x¼	T
105	.......Series 18	2-3	3060	163	220	.....	4870	8.25/20D	9.00/20	Wau 6MS	6-3¾x4¾	315	5.0	200	73-2500	7-2⅝x12½	N	Fu 5A380	5	Tim 56200H	SF	H	5.28-7.4	Tim 33000H	L41HV	335	578	a	TX	Opt	7x3½x¼	T
106	.......Series 22	2½-3½	3740	174	220	.....	5870	9.00/20D	9.75/22	Wau 6MK	6-4⅛x4¾	381	4.8	240	85-2400	7-2⅝x12½	N	Fu 5A380	5	Tim 58205H	SF	H	5.56-7.8	Tim 33000H	L41HV	414	660	a	TX	Opt	7x3½x¼	T
107	.......Series 27	2½-4	4400	178	230	.....	8100	9.75/20D	10.50/22	Wau 6MZ	6-4¼x4¾	404	6.0	274	90-2400	7-2⅝x12½	N	Fu 5A380	5	Tim 65720H	w/2F	H	6.85-9.41	Tim 35000H	L41HV	484	766	a	TX	Opt	8x3½x¼	T
108	.......Series 35	3½-6	5115	195	230	.....	9200	10.50/20D	11.25/22	Wau 6SRK	6-4⅝x5¼	517	4.6	330	110-2200	7-3x13½	N	Fu 5A530	5	Tim66725TW	w/2F	H	7.92-9.98	Tim36000TW	Ws41A	614	922	a	2I	Opt	8x3½x¼	T
109	.......Series 40	5-7½	6160	195	230	.....	10000	40x10D	12.00/24	Wau 6SRK	6-4⅝x5¼	517	4.6	330	110-2200	7-3x13½	N	Fu 5A530	5	Tim 68720W	w/2F	H	8.90-11.1	Tim27450TW	Ws41A	738	1047	a	2I	Opt	12¼x3¼x5/16	T
110	Day Elder......76	1½	945	135	168	10000	3900	6.00/20D	7.00/20	Her JXA	6-3¾x4¼	228	4.4	142	59-2800	7-2½x10 11/16	Y	WG T9	4	Tim 53300H	BF	H	4.56-6.6	Tim 30000H	L41H	269	380	a	XF	77½	5¾x3 11/16x5/16	C
111	86	2	1245	156	186	11200	4100	6.50/20D	7.50/20	Hex JXB	6-3¾x4¼	263	4.4	164	68-2800	7-2½x10 11/16	Y	WG T9	4	Tim 53300H	BF	H	4.56-6.6	Tim 30000H	L41H	269	380	a	XF	108½	7x3½x¼	C
112	111	2½	1495	156	186	13400	4800	7.00/20D	8.25/20	Her JXC	6-3¾x4¼	282	4.4	176	73-2800	7-2½x10 11/16	Y	WG T9	4	Tim 54410H	BF	H	4.12-6.8	Tim 31000H	L41H	332	528	a	XF	108½	7x3½x¼	C
113	131	3	2045	165	204	16300	6300	7.50/20D	9.00/20	Her WXC	6-4x4½	339	4.7	234	94-2800	7-2⅝x13¼	Y	Fu MLU	4	Tim 56200H	BF	H	4.44-7.4	Tim 33000H	L41HV	353	578	a	XF	118½	9x3½x¼	C
114	161	3½	2495	165	204	19500	6500	9.00/20D	9.75/22	Her WXC3	6-4¼x4½	383	4.7	265	106-2800	7-2⅝x13¼	Y	Fu MGU	4	Tim 58205H	BF	R	4.55-7.8	Tim 35000H	L41HV	395	660	a	DF	118½	9x3½x¼	C
115	201	4	2945	165	204	25300	7200	9.00/20D	10.50/22	Her WXC3	6-4¼x4½	383	4.7	265	106-2800	7-2⅝x13¼	Y	Fu MGU	4	Tim 65720H	WF	R	5.4-9.25	Tim 35000H	L41HV	484	768	a	DF	118½	9x3½x¼	C
116	241	5-7	4095	165	234	33500	9500	10.50/20D	11.25/22	Her RXC	6-4⅝x5¼	529	4.4	350	114-2200	7-3x12½	Y	Fu MHU	4	Tim 66720H	WF	R	5.64-10.3	Tim 26450H	L41HV	692	868	a	DF	149	10x3¾x5/16	C
117	Diamond T......80	¾	525	119	119	.....	2750	6.00/16S	7.50/16	Her QXB3	6-3¼x4⅛	205	5.15	135	61-3300	7-2⅛x10 1/16	N	WG T83	3	Cla R650	SF	H	4.5-5.1	Cla F180	L41H	212	352	C	T..	52	6x2¼x5/32	T
118	..........212AS	1½-2	625	139	163	11000	3450	6.00/20S	7.00/20	Her JXA	6-3¾x4¼	228	5.3	148	63-2800	7-2½x10 11/16	N	WG T9	4	Cla R750	SF	H	5.57-6.33	Cla F266	L41H	256	431	C	TX	60	8 3/16x3 3/16x¼	T
119	..........212BS	1½-2½	665	139	163	11500	3550	6.00/20S	7.50/20	Her JXA	6-3¾x4¼	228	5.3	148	63-2800	7-2½x10 11/16	N	WG T9	4	Cla R950	SF	H	5.57-6.33	Cla F266	L41H	283	471	C	TX	60	8 3/16x3 3/16x¼	T
120	...........221S	1½-3	730	139	175	12000	3750	6.00/20S	7.50/20	Her JXB	6-3¾x4½	263	5.4	164	68-2800	7-2½x10 11/16	N	WG T9	4	Cla R950	SF	H	5.57-6.33	Cla F266	L41HV	283	471	A	TX	60	8 3/16x3 3/16x¼	T
♦121	........(D)D20	1½-3	2150	151	175	13000	5300	6.00/20D	8.25/20	Her DJXB	6-3⅝x4½	260	14.	178	77-2600	7-3x10 1/16	Y	Cla 185F	4	Eat 1206	SF	H	Dual Range	Cla F308	L41HV	310	510	a	TD	72	8 3/16x3 3/16x¼	T
♦122	...........244S	2-3	950	151	175	13000	4300	6.00/20D	8.25/20	Her JXB	6-3¾x4½	263	5.4	164	68-2800	7-2½x10 11/16	Y	WG T9	4	Cla R950	SF	H	5.57-6.33	Cla F308	L41HV	310	510	A	TD	72	8 3/16x3 3/16x¼	T
♦123	313	2-4	1160	151	175	15000	4700	6.50/20D	8.25/20	Her JXB	6-3¾x4½	263	5.4	164	68-2800	7-2½x10 11/16	Y	WG T9	4	Cla R1100	SF	H	5.57-6.33	Cla F308	L41HV	366	613	A	TD	72	8 3/16x3 3/16x¼	T
♦124	320	2-4	1260	151	175	15000	4800	6.50/20D	8.25/20	Her JXC	6-3¾x4⅝	282	5.3	176	73-2800	7-2½x10 11/16	Y	Cla 185F	4	Cla R1100	SF	H	5.57-6.33	Cla F308	L41HV	366	613	A	TD	72	8 3/16x3 3/16x¼	T
♦125	353	2½-4	1475	151	175	16000	5200	7.00/20D	9.00/20	Her JXC	6-3¾x4⅝	282	5.3	176	73-2800	7-2½x10 11/16	Y	Cla 200V	5	Cla R645	SF	H	6.42-7.16	Cla F308	L41HV	405	689	A	TD	72	8 3/16x3 3/16x¼	T
♦126	360	2½-4	1575	151	175	16000	5300	7.00/20D	9.00/20	Her JXD	6-4x4¼	320	5.3	204	84-2800	7-2½x10 11/16	Y	Cla 200V	5	Cla R645	SF	H	6.42-7.16	Cla F308	L41HV	405	689	A	TD	72	8 3/16x3 3/16x¼	T
♦127	........(D)D30	2½-4	2750	151	175	17000	6300	7.00/20D	9.00/20	Her DJXC	6-3¾x4½	298	14.	208	86-2600	7-3x10 1/16	Y	Cla 200V	5	Eat 17075	SF	H	Dual Range	Cla F308	L41HV	405	689	a	TD	72	8 3/16x3 3/16x¼	T
128	...........512B	4-5	2440	189	225	20000	7300	8.25/20D	9.75/20	Her WXLC3	6-4¼x4¾	404	5.5	294	118-2800	7-2⅝x10 11/16	Y	Cla 270V	5	Tim 58205H	SF	R	5.57-6.83	Tim 35022	L41HV	405	689	a	TD	102	10x3x¼	T
129	..........412DR	4-5	2540	189	225	20000	7300	8.25/20D	9.75/20	Her WXLC3	6-4¼x4¾	404	5.5	294	118-2800	7-2⅝x10 11/16	Y	Cla 270V	5	Wis 72000	2F	R	6.36-7.27	Tim 35022	L41HV	405	689	a	TD	102	10x3x¼	T
130	..........512DR	5-6½	2760	189	225	24000	7700	8.25/20D	10.50/20	Her WXLC3	6-4¼x4¾	404	5.5	294	118-2800	7-2⅝x10 11/16	Y	Cla 270V	5	Wis 1337H	2F	R	6.85-7.37	Tim 35022	L41HV	500	768	a	TD	102	10x3x¼	T
131	Differential..E-131	2½	3200	160	160	18100	5100	9.00/20D	9.00/20	Lyc ASD	6-3¾x4½	299	4.9	198	85-2800	4-2⅝x9½	Y	BL 314	4	Tim 58200	BF	H	6.14 *7.8	Tim 33000H	L41HV	375	501	a	FD	77¼	12x2½x¼	P
♦132	Dodge Bros.(1)MC	Com'l	410	116	116	4000	2035	6.00/16S	6.00/16S	Own	6-3⅜x4 1/16	218	6.5	155	75-3000	4-2½x5⅜	N	Own	3	Own	S½	H	3.5-4.78	Own	O41H	148	251	c	TX	37 11/16	6x2x⅛	C
♦133	.......(1)MD15	¾	505	120	136	6000	2510	7.00/16††S	7.50/16S	Own	6-3⅜x4 1/16	218	6.5	155	75-3000	4-2½x5⅜	N	Own	3	Own	S½	H	3.9-4.78	Own	O41H	182	301	a	TX	41 11/16	6⅛x2 1/16x3/16	C
♦134	.......(1)ME15	¾	555	126	159	5700	3015	6.00/20†S	7.00/20S	Own	6-3⅜x4 1/16	218	5.8	150	73-3000	4-2½x5⅜	N	Own	4	Own	SF	H	4.87-5.4	Own	O41H	190	310	a	TX	51 3/16	6 11/16x2 11/16x3/16	CX
♦135	.......(1)MF28	¾	605	126	126	.....	3445	6.50/20S	6.50/20S	Own	6-3⅜x4¼	228	5.8	158	78-3000	4-2½x5½	Y	Own	4	Own	SF	H	5.1	Own	O41H	263	406	a	TX	51 3/16	7x2 11/16x7/32	CX
♦136	.......(1)MD20	1	505	120	136	6000	2510	7.00/16††S	7.50/16S	Own	6-3⅜x4 1/16	218	6.5	155	75-3000	4-2½x5⅜	N	Own	3	Own	S½	H	3.9-4.78	Own	O41H	182	301	a	TX	41 11/16	6⅛x2 1/16x3/16	C
♦137	.......(1)ME20	1	555	126	159	6200	3015	6.00/20†S	7.00/20S	Own	6-3⅜x4 1/16	218	5.8	150	73-3000	4-2½x5⅜	N	Own	4	Own	SF	H	4.87-5.4	Own	O41H	190	310	a	TX	51 3/16	6 11/16x2 11/16x3/16	CX
♦138	.......(1)MH29	1	900	133	148	.....	3875	7.00/20S	7.00/20S	Own	6-3⅜x4½	242	5.6	175	85-3000	4-2½x5 11/16	Y	Own	5	Own	SF	H	5.1	Own	O41H	322	502	a	TX	57 11/16	8 3/16x2 11/16x7/32	CX
♦139	.......(1)ME30	1½-2	555	126	159	9500	3015	6.00/20†S	7.00/20	Own	6-3⅜x4 1/16	218	5.8	150	73-3000	4-2½x5⅜	N	Own	4	Own	SF	H	4.87-5.4	Own	O41H	190	310	a	TX	51 3/16	6 11/16x2 11/16x3/16	CX
♦140	.......(1)MF35	1½-2	605	126	159	11500	3340	6.00/20†S	7.50/20	Own	6-3⅜x4¼	228	5.8	158	78-3000	4-2½x5⅜	N	Own	4	Own	SF	H	5.1-6.3	Own	O41H	263	406	a	TX	51 3/16	7x2 11/16x7/32	CX
♦141	.......(1)MG40	1½-4	900	133	177	13500	3970	6.50/20D	8.25/20	Own	6-3⅜x4½	242	5.6	175	85-3000	4-2½x5 11/16	Y	Own	5	Own	SF	H	5.1-6.3	Own	O41HV	322	502	a	TX	57 11/16	8 3/16x2 11/16x7/32	CX
♦142	.......(1)MN45	2-4	900	133	177	13500	4100	7.00/20D	8.25/20	Own	6-3⅜x4½	242	5.6	175	85-3000	4-2½x5 11/16	Y	Own	5	Own	SF	H	5.1-6.3	Own	O41HV	322	502	a	TX	57 11/16	8 3/16x2 11/16x7/32	CX
♦143	........(1)K50V	2-5½	1775	152	205	20000	5395	32x6D	9.75/20	Own	6-3⅜x5	309	4.7	200	96-3000	7-2⅝x11¾	Y	Own	5	Tim	SF	H	6.16-7.4	Tim	O41HV	421	685	a	TX	66 3/16	8 3/16x2⅞x3/16	C
♦144	........(1)K60V	3-5½	1775	152	205	20000	5525	8.25/20D	9.75/20	Own	6-3⅜x5	309	4.7	200	96-3000	7-2⅝x11¾	Y	Own	5	Tim	SF	H	6.16-7.4	Tim	O41HV	421	685	a	TX	66 3/16	8 3/16x2⅞x3/16	C
♦145	.........(1)G80	4-8	***	146	220	25000	7975	9.75/20D	10.50/20	Own	8-3½x5	385	5.0	260	115-3000	9-2¾x13	Y	Own	5	Own	SF	H	7.71-8.57	Own	Ws41A	600	867	a	CD	65 11/16	10 3/16x3 3/16x½	P
146	Duplex.........S	......	3860	166	Op	21000	6800	8.25/20D	9.00	Bud K325	6-3 13/16x4¾	330	4.5	213	87-2800	7-3rx11½	Y	BL 2352	5	Tim 65200	WF	H	5.9-8.4	Shu 5572	L41HV	399	485	a	TD	79	7x¼x3½	C
147	.............SC	......	4300	166	Op	22000	7300	9.00/20D	9.75/20	Bud K369	6-4 1/16x4¾	369	4.5	234	99-2800	7-3x11½	Y	BL 3353	..	Wis 72200	WF	H	5.6-8.0	Shu 5572	L41HV	399	485	a	TD	79	7x3½x¼	C
148	............SAC	......	4800	172	Op	25500	7900	9.75/20D	10.50	Bud K428	6-4⅜x4¾	428	4.5	280	105-2400	7-3rx11½	Y	BL 3353	5	Tim 75733	w/2F	R	6.8-9.4	Shu 5572	L41HV	504	605	a	TD	85	7x¼x3½	C
149	............SAK	......	5200	172	Op	30000	8550	10.50/20D	11.25	Bud K428	6-4⅜x4¾	428	4.5	280	105-2400	7-3x11½	Y	BL 3353	5	Tim 76733	w/2F	R	6.0-9.2	Shu 5572	L41HV	554	666	a	TD	85	7x¼x3½	C
150	..............K	......	5650	172	Op	32000	9000	10.50/20D	11.25	Bud L525	6-4½x5½	525	4.5	336	111-2200	7-3x11½	Y	BL 5351	5	Tim 76733	w/2F	R	6.0-9.2	Shu 637	L41HV	554	666	a	TD	85	8x¼x3½	C
151	Esco...........137	1-1½	1100	145	165	11000	3350	6.50/20D	7.00/20	Con 20C	6-3⅜x4⅝	248	5.	174	78-3100	7-2¼x10 3/16	N	Cla 200V7	5	Cla B8001	SF	H	5.62-6.28	Cla F264	L41H	258	438	a	TX	75½	6x3x3/16	TX
152	237	2-2½	2860	165	190	15000	5900	8.25/20D	8.25/20	Con E603	6-4¼x4½	383	4.6	250	95-2500	7-2⅝x12 11/16	Y	Cla 270V	5	Cla B642	SF	H	6.42-7.16	Cla F308	L41HV	350	578	a	TX	82	6x3x¼	CX
153	............237-O	2-2½	3200	165	190	15000	6300	8.25/20D	8.25/20	Con 20R-O	4-4⅛x4¾	380	4.7	252	88-2400	7-2¾x13 3/16	N	Cla 270V	5	Cla B642	SF	H	6.42-7.16	Cla F308	L41HV	350	578	a	TX	82	6x3x¼	CX
154	337	3	3450	190	215	18000	7700	9.00/20D	9.00/20	Con 21R	6-4⅜x4¾	428	4.6	308	118-2400	7-2¾x13 3/16	N	Fu 5A53	5	Cla B805	SF	H	5.75-7.16	Cla F320	L41HV	393	659	a	TX	107	6x3x3/16	PX
155	............337-O	3	3700	190	215	18000	7700	9.00/20D	9.00/20	Con 21R-O	6-4⅜x4¾	428	4.6	284	112-2400	7-2¾x13 3/16	N	Fu 5A53	5	Cla B805	SF	H	6.42-7.16	Cla F320	L41HV	393	659	a	TX	107	6x3x3/16	PX
156	Fageol......106BK	1½-2½	1275	156	169	12500	4400	6.50/20D	7.50/20	Wau 6BK	6-3¾x4¼	282	5.1	190	82-2800	7-2⅝x10¼	N	WG T9	4	Tim 53300H	BF	H	4.56-6.6	Tim 30000H	L41H	272	380	G	TX	76	8x3x¼	T
157	...........135BK	2-3	1545	169	183	15000	5100	7.50/20D	8.25/20	Wau 6BK	6-3¾x4¼	282	5.1	190	82-2800	7-2⅝x10¼	N	WG T9	4	Tim 54411H	BF	H	4.56-6.8	Tim 31000H	L41H	355	578	G	TX	89½	8x3x¼	T
158	...........250BK	2½-4	2200	183	196	19500	5900	8.25/20D	9.00/20	Wau 6BK	6-3¾x4¼	282	5.1	190	82-2800	7-2⅝x10¼	N	WG T9	4	Tim 56410H	BF	H	4.44-7.4	Tim 33020H	L41HV	355	578	G	TX	102¼	8x3x¼	T
159	...........250MK	2½-4	2450	188	201	19500	6175	8.25/20D	9.00/20	Wau 6MK	6-4⅛x4¾	381	4.4	240	82-2200	7-2⅝x12½	N	BL 3341	4	Tim 56410H	BF	H	4.44-7.4	Tim 33020H	L41HV	355	578	G	TX	102¼	8x3x¼	T
160	...........250RA	2½-4	2600	188	201	20700	6400	8.25/20D	9.00/20	Wau 6MK	6-4⅛x4¾	381	4.4	240	82-2200	7-2⅝x12½	N	BL 3341	4	Tim 58200H	BF	H	5.56-7.8	Tim 33020H	L41HV	398	659	G	TX	103¼	8x3x¼	T
161	...........300HP	3-5	3175	188	201	22000	7150	9.00/20D	9.75/20	Wau 6-110	6-4x4¾	358	5.2	254	110-2800	7-2⅞x12½	Y	BL 5241	4	Tim 58200H	BF	R	5.56-7.8	Tim 35020H	L41HV	398	659	G	FD	103¼	8x3x¼	T
162	...........300RA	3-5	3450	188	201	26300	7650	9.00 20D	9.75 20	Wau 6-110	6-4x4¾	358	5.2	254	110-2800	7-2⅞x12½	Y	BL 5241	4	Tim 65725H	WF	R	6.0-9.25	Tim 35020H	L41HV	484	768	G	FD	103¼	8x3x¼	T
163	(D).......300D	3-5	5175	193	206	22000	7850	9.00 20D	9.75/20	Wau 6DA100	6-4⅜x5⅛	462	17.	275	100-2200	7-3⅜x13¾	Y	BL 5341	4	Tim 58200H	BF	R	5.56-7.8	Tim 35020H	L41HV	398	659	G	FD	103⅝	8x3x¼	T
164	(D)....300RAD	3-5	5450	193	206	26300	8350	9.00/20D	9.75/20	Wau 6DA100	6-4⅜x5⅛	462	17.	275	100-2200	7-3⅜x13¾	Y	BL 5341	4	Tim 65725H	WF	R	6.0-9.25	Tim 35020H	L41HV	484	768	G	FD	103⅝	8x3x¼	T
165	...........370HP	5-6	4825	202	218	26300	9150	9.75/20D	10.50/20	Wau 6-125	6-4⅜x5⅛	462	5.2	324	125-2600	7-3x13⅞	Y	Fu MRU	4	Tim 65725H	WF	R	6.0-9.25	Tim 35000H	L41HV	484	768	G	FD	116¾	10⅜x3½x¼	T
166	...........370RA	5-6	5075	202	218	32000	9400	9.75/20D	10.50/20	Wau 6-125	6-4⅜x5⅛	462	5.2	324	125-2600	7-3x13⅞	Y	Fu MRU	4	Tim66720DH	WF	R	6.0-9.25	Tim 35000H	L41HV	663	768	G	FD	116¾	10⅜x3½x¼	T
167	(D)........370D	5-6	6825	213	229	26300	10250	9.75/20D	10.50/20	Wau 6DB140	6-5x5½	648	17.	410	140-2200	7-3⅝x18¾	Y	Fu MHU	4	Tim 65725H	WF	R	6.0-9.25	Tim 26450H	L41HV	484	768	G	FD	117¾	10⅜x3½x¼	T
168	(D)....370RAD	5-6	7075	213	229	32000	10500	9.75/20D	10.50/20	Wau 6DB140	6-5x5½	648	17.	410	140-2200	7-3⅝x18¾	Y	Fu MHU	4	Tim66720DH	WF	R	6.0-9.25	Tim 26450H	L41HV	663	768	G	FD	117¾	10⅜x3½x¼	T.

† Rear 32 x 6. †† Rear 7.50/16. (1) Dodge—"Ready to Run." Delivered at Detroit Price. Includes all Federal Taxes but does not include any state and/or local taxes. ♦ Denotes New Models or Change in Specifications.

For abbreviations see page 305

Line Number	MAKE AND MODEL	GENERAL (See Keynote): Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight with Max. Tires	Chassis Wt. (Stripped)	TIRE SIZES (D-dual rear, S-single rear): Standard Front and Rear	Maximum Tire Size Furnished	ENGINE DETAILS: Make and Model	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Main Bearings: Number, Diameter and Length	Governor Standard	TRANSMISSION: Make and Model	Forward Spd's	REAR AXLE: Make and Model	Gear and Type	Drive & Torque	Gear Ratio Range in High	FRONT AXLE: Make and Model	BRAKES, SERVICE: Make Location Type Operat'n	Lining Area	Drum Area	Drum Material	Hand Location Type	C-A Dimension (Std. W. B.)	FRAME: Side Rail Dimensions	Type
1	Federal.........9	¾-1	645	105	121	.....	2850	6.00/20S	6.00/20	Con C400	4-3⅜x4	143	5.2	97	33-2500	3-1¾x5	N	WG T9	4	Tim 51200H	SF	H	5.14-5.83	Tim 30020H	L4IH	265	388	a	TX	35⅞	6 11/16x2⅞x3/16	T
2	10	¾-1½	575	128	152	.....	2950	6.00/20S	6.00/20	Her OOB	4-3¾x4½	199	5.3	127	50-2500	3-2x7 1/16	N	WG T9	4	Tim 51200H	SF	H	5.14-5.83	Tim 30020H	L4IH	265	388	a	TX	51⅝	7x2⅞x7/32	T
3	11	¾-1½	595	128	152	.....	2950	6.00/20S	6.00/20	Her QXB3	6-3¼x4⅛	205	5.2	134	57-2500	7-2½x10 1/16	N	WG T9	4	Tim 51200H	SF	H	5.14-5.83	Tim 30020H	L4IH	265	388	a	TX	51⅝	7x2⅞x7/32	T
4	15	1½-2½	695	135	194	.....	4230	6.00/20†S	7.50/20	Her JXA	6-3⅜x4¼	228	5.3	155	70-2800	7-2½x10 11/16	Y	WG T9	4	Tim 53521H	SF	H	5.14-6.2	Tim 30000H	L4IH	262	402	a	TX	56¾	8½x2⅞x¼	T
5	18	2-3	925	135	194	.....	4340	6.50/20D	8.25/20	Her JXB	6-3⅝x4¼	263	5.4	183	80-2800	7-2½x10 11/16	Y	WG T9	4	Tim 53303H	SF	H	5.83-6.8	Tim 30003H	L4IH	267	452	a	TX	56¾	8½x2⅞x¼	T
6	20	2-3½	1075	135	194	.....	4440	6.50/20D	8.25/20	Her JXB	6-3⅝x4¼	263	5.4	183	80-2800	7-2½x10 11/16	Y	WG T9	4	Tim 53307H	SF	H	5.83-6.8	Tim 31000H	L4IHV	318	527	a	TX	56¾	8½x2⅞x¼	T
7	25	2½-4	1295	135	194	.....	5220	7.00/20D	9.00/20	Her JXC	6-3¾x4¼	282	5.4	195	85-2800	7-2½x10 11/16	Y	Cla 185F	4	Tim 54411H	SF	H	5.83-6.8	Tim 31000H	L4IHV	344	578	a	TX	56¾	8½x2⅞x¼	T
8	29	3-4½	1745	135	194	.....	5660	7.50/20D	9.00/20	Her JXD	6-4x4¼	320	5.6	225	95-2800	7-2½x10 11/16	Y	Cla 200V	5	Tim 56411H	SF	H	6.16-7.4	Tim 32501H	L4IHV	380	659	a	TX	56¾	8½x2⅞x¼	T
9	40	4-5	2625	157	219	.....	7200	9.00/20D	10.50/20	Wau 6MK	6-4⅛x4¾	381	6.1	273	98-2400	7-2⅝x12½	Y	Cla 270V	5	Tim 58205H	SF	H	5.57-7.8	Tim 33000H	L4IHV	380	659	a	FD	82	10⅛x3⅓x3/16	T
10	.........40DR	4-5	2795	157	219	.....	7200	9.00/20D	10.50/20	Wau 6MK	6-4⅛x4¾	381	6.1	273	98-2400	7-2⅝x12½	Y	Cla 270V	5	Wis 72200H	2F	H	5.61-7.27	Tim 33000H	L4IHV	380	659	a	FD	82	10⅛x3⅓x3/16	T
11	50	5-6	3195	157	219	.....	7900	9.00/20D	10.50/20	Wau 6MZ	6-4¼x4¾	404	6.0	292	105-2400	7-2⅝x12½	Y	Cla 270V	5	Tim 75733H	2F	R	7.09-9.41	Tim 35000H	L4IHV	466	768	a	FD	82	10⅛x3⅓x3/16	T
12	.........C7-C7W	6-7½	4710	195	249	.....	10000	9.75/20D	10.50/24	Wau 6SRK	6-4⅝x5⅛	517	4.6	350	115-2200	7-3x13⅞	Y	Cla B710	5	Tim 76736H	w/2f	R	7.35-10.2	Tim 36020H	L4IHV	512	867	a	TD	102	7⅝x3½x3/16	P
13	.........C8-C8W	6-7½	5120	195	249	.....	10200	9.75/20D	10.50/24	Wau 6SRK	6-4⅝x5⅛	517	4.6	350	115-2200	7-3x13⅞	Y	Cla B710	5	Tim 76736W	w/2f	R	7.35-10.2	Tim 36020W	Ws4IA	609	894	a	TD	102	7⅝x3½x3/16	P
14	...X8R-X8RDR	7½	4735	162	186	.....	10475	40x8D	10.50/24	Wau 6SRK	6-4⅝x5⅛	517	4.6	350	115-2200	7-3x13⅞	Y	Cla B710	5	Tim 68702DP	w/2f	R	8.9-11.14	Own 5008	T2IMV	458	495	a	RI	87	9⅛x3½x11/32	C
15	......(c.o.e.) 75	1½-2½	1025	104	159	.....	4280	6.00/20†S	7.50/20	Her JXA	6-3⅜x4¼	228	5.3	155	70-2800	7-2½x10 11/16	Y	Cla 185F	4	Tim 53521H	SF	H	5.14-6.2	Tim 32502H	L4IH	267	452	a	TX	60	8½x2⅞x¼	T
16	......(c.o.e.) 80	2-3½	1370	104	159	.....	4500	6.50/20D	8.25/20	Her JXB	6-3⅝x4¼	263	5.4	183	80-2800	7-2½x10 11/16	Y	Cla 185F	4	Tim 53307H	SF	H	5.83-6.8	Tim 32502H	L4IHV	318	527	a	TX	60	8½x2⅞x¼	T
17	......(c.o.e.) 85	2½-4	1560	104	159	.....	5280	7.00/20D	9.00/20	Her JXC	6-3¾x4¼	282	5.4	195	85-2800	7-2½x10 11/16	Y	Cla 185F	4	Tim 54411H	SF	H	5.83-6.8	Tim 32502H	L4IHV	344	578	a	TX	60	8½x2⅞x¼	T
18	......(c.o.e.) 89	3-4½	1995	104	159	.....	5720	7.50/20D	9.00/20	Her JXD	6-4x4¼	320	5.6	225	95-2800	7-2½x10 11/16	Y	Cla 200V	5	Tim 56411H	SF	H	6.16-7.4	Tim 32502H	L4IHV	380	659	a	TX	60	8½x2⅞x¼	T
19	Ford.........75	1½	495	131	131	.....	3020	6.00/20†S	32x7	Own	8-2.6x3.2	136	6.6	94	60-3500	3-2x5.3	N	Own	4	Own	FS	U	6.67	Own	O4IM	350	489	a	2I	57¾	7x2¾x7/32	C
20	79	1½	505	131	131	.....	3220	6.00/20†S	32x7	Own	8-3 1/16x3¾	221	6.12	146	85-3800	3-2.4x5.37	N	Own	4	Own	FS	U	5.14-6.67	Own	O4IM	350	489	a	2I	57¾	7x2¾x7/32	C
21	79	1½	530	157	157	.....	3297	6.00/20†S	32x7	Own	8-3 1/16x3¾	221	6.12	146	85-3800	3-2.4x5.37	N	Own	4	Own	FS	U	5.14-6.67	Own	O4IM	350	489	a	2I	83¼	7x2¾x7/32	C
22	.....Commercial	....	360	112	112	.....	1766	6.00/16S	6.50/16	Own	8-2.6x3.2	136	6.6	94	60-3500	3-2x5.3	N	Own	3	Own	S¾	U	4.11-4.44	Own	O4IM	186	293	a	4I	38¼	5½x2x.11	C
23	....	....	370	112	112	.....	1966	6.00/16S	6.50/16	Own	8-3 1/16x3¾	221	6.12	146	85-3800	3-2.4x5.37	N	Own	3	Own	S¾	U	3.54-4.11	Own	O4IM	186	293	a	4I	38¼	5½x2x.11	C
♦ 24	Gen. Mot.(N) T-14	½	395	112	126	.....	2115	6.00/16S	7.00/15S	Own 230	6-3 7/16x4⅛	230	6.2	172	86-3500	4-2 11/16 rx5 3/16	N	Own	3	Own	S½	U	**4.11	Own	O4IH	168	242	c	2I	38¼	5¾x2¼x3/16	C
♦ 25	.........T-16	1½-3	525	131	157	.....	3085	6.00/20†S	7.50/20	Own 230	6-3 7/16x4⅛	230	6.2	172	86-3500	4-2 11/16 rx5 3/16	N	Own	4	Own	SF	H	5.67-6.20	Own	O4IH	337	477	c	2I	57¾	7x2⅜x7/32	T
♦ 26	.........T-16H	1½-3½	695	130	174	.....	3415	6.00/20†S	7.50/20	Own 230	6-3 7/16x4⅛	230	6.2	172	86-3500	4-2 11/16 rx5 3/16	N	Own	4	Own	SF	H	5.67-6.60	Own	LO4IH	349	477	c	2I	57¾	7 1/16x2 15/32x¼	T
♦ 27	.........T-18	1½-4	840	136	178	.....	3840	30x5†S	7.50/20	Own 239	6-3 5/16x4⅝	239	5.1	175	81-3000	4-2⅜x7 23/32	Y	Own	4	Own	SF	H	5.67-6.60	Own	LO4IH	351	482	Ca	TX	60	8x3x¼	T
♦ 28	.........T-18H	1½-4½	965	136	178	.....	4100	6.50/20D	34x7	Own 239	6-3 5/16x4⅝	239	5.1	175	81-3000	4-2⅜x7 23/32	Y	Own	4	Own	SF	H	5.83-6.80	Own	L4IH	342	533	Ca	TX	60	8x3x¼	T
29	.........T-23	2-4½	1310	136	196	.....	4575	7.00/20D	34x7	Own 257	6-3 7/16x4⅝	257	5.0	190	87-2800	4-2⅜x7 23/32	Y	Own	4	Own	SF	H	5.83-6.80	Own	L4IHV	342	533	Ca	TX	60	8x3x¼	T
30	.........T-23H	2-5	1540	136	196	.....	5220	7.50/20D	9.00/20	Own 257	6-3 7/16x4⅝	257	5.0	190	87-2800	4-2⅜x7 23/32	Y	Own	4	Own	SF	H	5.63-7.20	Own	L4IHV	386	613	Ca	TX	60	8x3x¼	T
31	.........T-33	2½-6	1785	136	196	.....	5560	7.50/20D	9.75/20	Own 286	6-3⅝x4⅝	286	4.9	205	90-2600	4-2⅜x7 23/32	Y	Own	4	Own	SF	H	5.63-7.20	Own	L4IHV	389	663	a	TX	60	8 11/16x3½x¼	T
32	.........T-33H	2½-6½	2185	136	196	.....	6175	8.25/20D	10.50/20	Own 286	6-3⅝x4⅝	286	4.9	205	90-2600	4-2⅜x7 23/32	Y	Own	4	Own	SF	R	6.43-7.16	Own	L4IHV	480	768	a	TX	60	8 11/16x3½x¼	T
33	.........T-46	3½-7	2485	136	196	.....	6810	8.25/20D	10.50/20	Own 331	6-3¾x5	331	4.7	230	94-2500	4-2½x8 27/32	Y	Own	5	Own	SF	R	6.43-7.16	Own	L4IHV	528	848	a	TX	60	9 1/16x3½x3/16	T
34	.........T-61	4-8	3985	136	196	.....	7980	9.00/20D	11.25/20	Own 400	6-4⅛x5	400	4.7	296	110-2300	4-2.7x8 15/32	Y	Own	5	Own	2F	R	7.38-9.41	Own	TW4IA	581	921	a	TX	60	9 1/16x3½x3/16	TL
35	.........T-61H	5-10	4275	136	196	.....	8470	9.00/20D	11.25/24	Own 400	6-4⅛x5	400	4.7	296	110-2300	4-2.7x8 15/32	Y	Own	5	Own	2F	R	7.34-9.19	Own	TW4IA	581	921	a	TX	60	9 1/16x3½x3/16	TL
♦ 36	...(c.o.e.) F-16	1½-3½	635	108	155	.....	3300	6.00/20†S	7.50/20	Own 230	6-3 7/16x4⅛	230	6.2	172	86-3500	4-2 11/16 rx5 3/16	N	Own	4	Own	SF	H	5.67-6.20	Own	LO4IH	349	477	c	2I	64	7 1/16x2 15/32x¼	T
♦ 37	...(c.o.e.) F-16H	1½-4	775	108	174	.....	3490	6.00/20†S	7.50/20	Own 230	6-3 7/16x4⅛	230	6.2	172	86-3500	4-2 11/16 rx5 3/16	N	Own	4	Own	SF	H	5.67-6.60	Own	LO4IH	349	477	c	2I	64	7 1/16x2 15/32x¼	T
♦ 38	...(c.o.e.) F-18	1½-4½	970	108	178	.....	3910	30x5†S	7.50/20	Own 239	6-3 5/16x4⅝	239	5.1	175	81-3000	4-2⅜x7 23/32	Y	Own	4	Own	SF	H	5.67-6.60	Own	LO4IH	351	482	Ca	TX	64	8x3x¼	T
♦ 39	...(c.o.e.) F-18H	1½-4½	1095	108	178	.....	4170	6.50/20D	34x7	Own 239	6-3 5/16x4⅝	239	5.1	175	81-3000	4-2⅜x7 23/32	Y	Own	4	Own	SF	H	5.83-6.80	Own	L4IH	342	533	Ca	TX	64	8x3x¼	T
40	...(c.o.e.) F-23	2-5	1470	108	196	.....	4690	7.00/20D	34x7	Own 257	6-3 7/16x4⅝	257	5.0	190	87-2800	4-2⅜x7 23/32	Y	Own	4	Own	SF	H	5.83-6.80	Own	L4IHV	345	583	a	TX	64	8x3x¼	T
41	...(c.o.e.) F-23H	2-6	1700	108	196	.....	5280	7.50/20D	9.00/20	Own 257	6-3 7/16x4⅝	257	5.0	190	87-2800	4-2⅜x7 23/32	Y	Own	4	Own	SF	H	5.63-7.20	Own	L4IHV	389	663	a	TX	64	8x3x¼	T
42	...(c.o.e.) F-33	2½-6½	1965	108	196	.....	5600	7.50/20D	9.75/20	Own 286	6-3⅝x4⅝	286	4.9	205	90-2600	4-2⅜x7 23/32	Y	Own	4	Own	SF	H	5.63-7.20	Own	L4IHV	437	743	a	TX	64	8 11/16x3½x¼	T
43	...(c.o.e.) F-33H	2½-7	2365	108	196	.....	6215	8.25/20D	10.50/20	Own 286	6-3⅝x4⅝	286	4.9	205	90-2600	4-2⅜x7 23/32	Y	Own	4	Own	SF	R	6.43-7.16	Own	L4IHV	528	848	a	TX	64	8 11/16x3½x¼	T
44	...(c.o.e.) F-46	3½-8	2665	108	196	.....	7200	8.25/20D	10.50/20	Own 331	6-3¾x5	331	4.7	230	94-2500	4-2½x8 27/32	Y	Own	5	Own	SF	R	6.43-7.16	Own	L4IHV	511	867	a	TX	64	9 1/16x3½x3/16	T
45	...(c.o.e.) F-61	4-10	4165	108	196	.....	8250	9.00/20D	11.25/20	Own 400	6-4⅛x5	400	4.7	296	110-2300	4-2.7x8 15/32	Y	Own	5	Own	2F	R	7.38-9.41	Own	TW4IA	581	921	a	TX	64	9 1/16x3½x3/16	TL
46	...(c.o.e.) F-61H	5-12	4355	108	196	.....	8630	9.00/20D	11.25/24	Own 400	6-4⅛x5	400	4.7	296	110-2300	4-2.7x8 15/32	Y	Own	5	Own	2F	R	7.34-9.19	Own	TW4IA	581	921	a	TX	64	9 1/16x3½x3/16	TL
♦ 47	Gramm.........15A	1½-2	565	136	220	9500	3000	6.00/20S	7.50/20	Her QXB3	6-3¼x4⅛	205	5.5	135	61-3100	7-2½x10 1/16	N	WG T9	4	Cla R650	SF	H	5.62-6.28	Cla F182	L4IH	210	352	a	TX	55	7 1/16x2¾x7/32	T
48	.........25A	1½-2	595	136	220	11500	3200	6.00/20S	7.50/20	Her QXB3	6-3¼x4⅛	205	5.5	135	61-3100	7-2½x10 1/16	N	WG T9	4	Cla R750	SF	H	5.1-6.8	Cla F182	L4IH	240	392	a	TX	55	7 1/16x2¾x7/32	T
49	.........30A	2-3	625	136	220	11500	3300	6.00/20S	7.50/20	Her JXA	6-3⅜x4¼	228	5.3	148	63-2800	7-2½x10 11/16	N	WG T9	4	Cla R750	SF	H	5.1-6.8	Cla F266	L4IH	256	432	a	TX	55	7 1/16x2¾x7/32	T
50	.........40A	2½-3½	745	136	220	13000	3650	6.00/20S	8.25/20	Her JXB	6-3⅝x4¼	263	5.4	164	68-2800	7-2½x10 11/16	N	WG T9	4	Tim 53300	SF	H	4.57-6.6	Cla F266	L4IH	276	442	a	TX	55	7 1/16x2¾x7/32	T
51	.........45A	2½-4	845	136	220	14000	4000	6.00/20S	34x7	Her JXB	6-3⅝x4¼	263	5.4	164	68-2800	7-2½x10 11/16	N	WG T9	4	Tim 54411	SF	H	4.12-6.8	Cla F266	L4IH	360	568	a	TX	55	7 1/16x2¾x7/32	T
52	.........50A	3-4	1095	136	220	15000	4600	6.50/20D	34x7	Her JXB	6-3⅝x4¼	263	5.4	164	68-2800	7-2½x10 11/16	N	WG T9	4	Tim 54411	SF	H	4.12-6.8	Tim 31000	L4IHV	388	578	a	TX	55	10x2¾x11/32	P
53	.........55A	3-4½	1195	136	220	15000	4700	6.50/20D	34x7	Her JXC	6-3¾x4¼	282	5.3	176	73-2800	7-2½x10 11/16	N	Cla 185F	4	Tim 54411	SF	H	4.12-6.8	Tim 31000	L4IHV	388	578	a	TX	55	10x2¾x11/32	P
54	.........70A	3½-4½	1425	136	220	17000	5200	7.00/20D	9.75/20	Her JXC	6-3¾x4¼	282	5.3	176	73-2800	7-2½x10 11/16	N	Cla 200V	5	Tim 56410	SF	H	4.44-7.4	Tim 31000	L4IHV	388	578	a	TX	55	10x2¾x11/32	P
55	.........75A	3½-5	1595	136	220	18000	5300	7.00/20D	9.75/20	Her JXD	6-4x4¼	320	5.6	204	84-2800	7-2½x10 11/16	N	Cla 200V	5	Tim 56410	SF	H	4.44-7.4	Tim 31000	L4IHV	388	578	a	TX	55	10x2¾x11/32	P
56	.........85A	4-5½	1795	136	220	20000	5700	7.50/20D	10.50/20	Her JXD	6-4x4¼	320	5.6	204	84-2800	7-2½x10 11/16	N	Cla 200V	5	Tim 58200	SF	H	5.25-7.8	Tim 32500	L4IHV	436	660	a	TX	55	10x2¾x11/32	P
57	(D)....DJX40A	2½-3½	1995	136	220	13000	3950	6.00/20S	8.25/20	Her DJXB	6-3½x4½	260	14.5	178	77-2600	7-3x10 7/32	Y	Cla 185F	4	Tim 53300	SF	H	4.57-5.66	Cla 266F	L4IH	277	442	a	TX	55	7 1/16x2¾x7/32	T
58	(D)....DJX55A	3-4½	2595	136	220	15000	5000	6.50/20D	34x7	Her DJXB	6-3½x4½	260	14.5	178	77-2600	7-3x10 7/32	Y	Cla 185F	4	Tim 54411	SF	H	4.12-6.8	Tim 31000	L4IHV	388	578	a	TX	55	10x2¾x11/32	P
59	(D)....DJX70A	3½-4½	2845	136	220	17000	5500	7.00/20D	9.75/20	Her DJXB	6-3½x4½	260	14.5	178	77-2600	7-3x10 7/32	Y	Cla 200V	5	Tim 56410	SF	H	4.4 -7.4	Tim 31000	L4IHV	388	578	a	TX	55	10x2¾x11/32	P
60	(D)....DJX75A	3½-5	2995	136	220	18000	5600	7.00/20D	9.75/20	Her DJXC	6-3¾x4½	298	14.5	194	84-2600	7-3x10 7/32	Y	Cla 200V	5	Tim 56410	SF	H	4.4 -7.4	Tim 31000	L4IHV	388	578	a	TX	55	10x2¾x11/32	P
61	(D)....DJX85A	4-5½	3195	136	220	20000	6000	7.50/20D	10.50/20	Her DJXC	6-3¾x4½	298	14.5	194	84-2600	7-3x10 7/32	Y	Cla 200V	5	Tim 58200	SF	H	5.25-7.8	Tim 32500	L4IHV	436	660	a	TX	55	10x2¾x11/32	P
62	.........EY190	3	3595	190	190	16000	6750	7.50/20D	9.00/20	Con 20R	4⅛x4¾	380	4.7	238	88-2400	7-2¾x13 3/16	Y	Co Rus4	4	Tim 58200H	BF	H	4.55*7.8	Tim 32500	L4IHV	375	....	a	TD	90	8¾x3¼x¼	LDX
63	.........GY	4	4345	190	210	18000	7700	8.25/20D	9.75/20	Con 21R	6-4⅜x4¾	429	4.6	268	100-2200	7-2¾x13 3/16	Y	Co Rus	4	Wis 69317H	2F	H	5.9 *8.4	Tim 32500	L4IHV	375	....	a	TD	119 3/16	8¾x3¼x¼	LDX
64	.........GF	4-6	5500	150	225	24000	9050	9.75/20D	10.50/20	Her HXC	6-5¼x6	779	4.5	505	143-1600	7-3½x17	N	BL 744	4	Wis 1237H	2F	H	4.29*7.2	Tim 33000	L4IHV	466	....	a	TD	67	12x2½x¼	TP
65	.........GW	5-7½	5175	157	240	28000	9500	9.00/20D	11.25/20	Con 21R	6-4⅜x4¾	428	4.1	268	100-2200	7-2¾x13 3/16	Y	Cla R900	5	Wis 1627KW	2F	H	6.3 *8.0	Tim 27450	Ws4IA	576	....	a	TD	73⅛	12x2½x¼	TP
66	(D).......GWD	5-7½	6495	157	240	30000	10000	10.50/20D	11.25/20	Cum H Die	6-4⅞x6	672	17.	440	125-1800	7-3¼x16½	Y	BL 735	5	Wis 1737KW	2F	H	5.75*8.0	Tim 27450	Ws4IA	576	....	a	TD	73⅛	12x2½x¼	TP
67	.........HY	5	6595	210	236	22000	10100	9.00/20D	9.75/20	Con 16H	6-4¾x5¾	611	4.1	382	127-2300	7-3x13 11/16	Y	Fu HU16	4	Wis12527KW	2F	H	4.00*8.0	Tim 27450	Ws4IA	576	....	a	TD	141⅛	8¾x3¼x¼	LDX
68	Grass-Premier..545	3-4	2400	130	176	18000	5575	7.50/20D	8.25/20	Wau 6BK	6-3¾x4¼	282	5.1	180	85-3200	7-2⅝x10¼	N	Fu 5A290	5	Tim 56200H	SF	R	6.16-7.4	Tim 31000H	L4IHV	328	353	A	TX	58	8x¼x3½	T
69	555	4-5	3600	130	Op	20000	6100	8.25/20D	9.00/20	Wau 6-110-3	6-4x4¾	358	5.2	254	110-2800	7-2⅞x12½	Y	Fu 5A380	5	Tim 58200H	SF	R	6.8-7.8	Tim 33000H	L4IHV	374	397	A	TD	58	9x¼x4	T
70	565	5-7	4400	136	Op	25000	8465	9.00/20D	9.75/20	Wau 6-110-3	6-4x4¾	358	5.2	254	110-2800	7-2⅞x12½	Y	Fu 5A380	5	Eat 2622	2F	R	8.05-9.43	Tim 35000H	L4IHV	398	396	A	TD	60	10x¼x4	T
71	575	7-10	5400	136	Op	30000	9450	9.75/20D	10.50/20	Wau 6-125-4	6-4⅜x5⅛	462	5.1	324	125-2600	7-3x12½	Y	Fu 5A53	5	Wis 1737	2F	R	8.05-9.15	Tim 35000H	L4IHV	453	412	A	TD	60	12x¼x4	T
72	Hahn.......HB-3	2	1280	134	Op	12000	3900	7.00/20D	7.50/20	Wau 6BK	6-3¾x4¼	282	5.1	190	82-2800	7-2⅝x10¼	N	WG T9	4	Cla B373	SF	H	** 5.66	Cla F266	L4IH	223	421	G	TX	Opt	5¾x2¼x¼	P
73	.........HB-4	2	1480	136	Op	14000	4500	7.50/20D	7.50/20	Wau 6BK	6-3¾x4¼	282	5.1	190	82-2800	7-2⅝x10¼	N	WG T9	4	Tim 53300H	SF	H	** 6.6	Tim 30000H	L4IH	269	515	G	TX	Opt	5¾x2¼x¼	P
74	.........HB-5	2½	1800	138	Op	18000	5400	8.25/20D	34x7	Wau 6BK	6-3¾x4¼	282	5.1	190	82-2800	7-2⅝x10¼	N	Fu MLU	4	Tim 54412H	SF	H	** 5.8	Tim 31000H	L4IH	355	526	G	TD	Opt	6x2½x¼	P
75	.........HB-6	3	1995	142	Op	20000	6050	9.00/20D	9.00/20	Wau 6BK	6-3¾x4¼	282	5.1	190	82-2800	7-2⅝x10¼	N	Fu 5B330	5	Tim 56410H	SF	H	** 5.14	Tim 31000H	L4IH	377	702	G	TD	Opt	6x2½x¼	P
76	250	3	2695	148	Op	22000	6300	9.00/20D	36x8	Wau 6MZ	6-4¼x4¾	404	4.6	255	90-2500	7-2⅝x12½	Y	Fu 5A380	5	Tim 56410H	SF	H	** 5.14	Tim 31000H	L4IH	390	702	G	TD	Opt	7x3x¼	P
77	300	3½	2900	150	Op	22000	6700	9.00/20D	9.75/20	Wau 6MZ	6-4¼x4¾	404	4.6	255	90-2500	7-2⅝x12½	Y	Fu 5A380	5	Tim 58205H	SF	H	** 6.8	Tim 33000H	L4IHV	660	803	G	TD	Opt	7x3x¼	P
78	.........HD-2	4	3100	154	Op	25000	7600	9.75/20D	9.75/22	Wau 6MZ	6-4¼x4¾	404	4.6	255	90-2500	7-2⅝x12½	Y	Fu 5A380	5	Tim 58205H	SF	H	** 6.8	Tim 33000H	L4IHV	660	803	G	TD	Opt	7x3x¼	P
79	.........HD-3	4-6	3240	162	Op	26000	9050	9.75/20D	9.75/22	Wau 6MZ	6-4¼x4¾	404	4.6	255	90-2500	7-2⅝x12½	Y	Fu 5A380	5	Tim 58205H	SF	R	** 6.8	Tim 35000H	L4IHV	660	803	G	TD	Opt	7x3x¼	P
80	440	5-6	4870	165	Op	26000	9200	9.75/20D	10.50/20	Wau 6SRK	6-4⅝x5⅛	517	4.6	335	110-2000	7-3x13⅞	Y	Fu 5A620	5	Wis 1337BH	2F	R	** 7.2	Tim 35000H	L4IHV	760	820	G	TD	Opt	10x3x3/16	D

† Rear 32 x 6

81	Hendrickson	15SA	2½	1760	89	210	17000	5400	8.25/20D	9.00/20	Wau 6BK	6-3¾x4¼	282	5.1	180	85-3200	7-2⅝x10¼	Y	Fu 5A33	5	Cla B613	BF	H	5.66-6.87	Cla F320	L4IH	350	450	a	DX	68	8x3x5/16	C
82	(12)	19S	3	3100	100	225	19000	6500	9.00/20D	9.75/20	Wau 6-110	6-4x4¾	358	4.6	254	110-2800	7-2⅝x12½	Y	Fu 5A38	5	Cla B805	BF	R	5.28-7.45	Cla F320	L4IHV	500	658	a	TD	Opt	8x3x5/16	C
83		24S	4	3600	100	225	24000	8200	9.75/20D	10.50/22	Wau 6-110	6-4x4¾	358	4.6	254	110-2800	7-2⅝x12¼	Y	Fu 5A38	5	Tim 75733H	w/2	R	7.33-9.45	Tim 35000H	L4IHV	717	862	a	TD	Opt	8x3x5/16	P
84		32S	5	4200	100	250	32000	10600	9.75/20D	10.50/24	Wau 125	6-4⅜x5⅛	462	4.6	324	125-2600	7-3x13⅞	Y	Fu 5A62	5	Tim 76733H	w/2	R	6.02-9.2	Tim 27450	L4IHV	717	862	a	TD	Opt	8x3x5/16	P
85	Hug	12D	1½	1650	118	130	12000	4550	7.50/20D	9.00/20	Wau 6BL	6-3½x4¼	245	5.4	165	72-3000	7-2⅝x10¼	Y	Fu 5B330	5	Cla B642	SF	H	6.42*7.16	Cla F308	L4IH	342	578	a	T	51¼	8x3x¼	T
86		15A	1¾-2½	1315	136	156	10500	4100	6.50/20D	34x7	Wau 6BL	6-3½x4¼	245	5.4	165	72-3000	7-2⅝x10¼	Y	Cla B363	4	Cla B377	SF	H	5.10*6.37	Cla F308	L4IH	262	438	a	T	69¼	8x3x¼	T
87		15D	1¾-2½	1355	118	130	11500	4100	6.50/20D	34x7	Wau 6BL	6-3½x4¼	245	5.4	165	72-3000	7-2⅝x10¼	Y	Cla B363	4	Cla B470	SF	H	5.66*6.87	Cla F308	L4IH	272	452	a	T	51¼	8x3x¼	T
88		15T	1¾-2½	1355	130	150	20000	4100	6.50/20D	34x7	Wau 6BL	6-3½x4¼	245	5.4	165	72-3000	7-2⅝x10¼	Y	Cla B363	4	Cla B470	SF	H	5.66*6.87	Cla F308	L4IH	272	452	a	T	61	8x3x¼	T
89		19A	2½-5	1620	136	156	18000	4880	7.50/20D	34x7	Wau 6BK	6-3¾x4¼	282	5.4	188	85-3000	7-2⅝x10¼	Y	Fu 5B330	5	Cla B611	SF	H	5.66*6.87	Cla F308	L4IH	311	528	a	T	69¼	8x3x¼	T
90		19D	2½-3	1660	118	130	14500	4880	7.50/20D	9.00/20	Wau 6BK	6-3¾x4¼	282	5.4	188	85-3000	7-2⅝x10¼	Y	Fu 5B330	5	Cla B642	SF	H	6.42*7.16	Cla F308	L4IH	342	578	a	T	51¼	8x3x¼	T
91		19T	2½-5	1660	130	150	26000	4880	7.50/20D	9.00/20	Wau 6BK	6-3¾x4¼	282	5.4	188	85-3000	7-2⅝x10¼	Y	Fu 5B330	5	Cla B642	SF	H	6.42*7.16	Cla F308	L4IH	342	578	a	T	61	8x3x¼	T
92		23S	2½	2320	146	201	16400	6400	8.25/20D	9.00/20	Bud H298	6-3¾x4½	298	5.3	200	80-2800	7-3x9⅞	Y	Fu MLU	4	Cla B642	SF	H	6.42*7.16	Cla F320	L4IH	348	578	a	CD	61	8x3x¼	T
93		23A	2½-5	2075	156	188	19000	5120	7.50/20D	34x7	Bud H298	6-3¾x4½	298	5.3	200	80-2800	7-3x9⅞	Y	Fu 5B330	5	Cla B611	SF	H	5.66*6.87	Cla F320	L4IHV	348	578	a	CD	89¼	8x3x¼	T
94		23T	2½-5	2125	130	150	28000	5120	7.50/20D	9.00/20	Bud H298	6-3¾x4½	298	5.3	200	80-2800	7-3x9⅞	Y	Fu 5B330	5	Cla B642	SF	H	6.42*7.16	Cla F320	L4IHV	348	578	a	CD	61	8x3x¼	T
95		41S	3	5070	158	158	18165	8500	9.75/20D	9.75/20	Bud K428	6-4⅝x4¾	428	4.8	280	107-2600	7-3x11½	Y	Fu MRUAY	4	Wis 1237H	2F	H	7.20*8.95	Shu 632	L4IHV	620	894	a	CD	72½	8x3x¼	T
96		42A	3-6	2660	166	195	22000	6800	9.00/20D	9.75/20	Bud K369	6-4 5/16x4¾	369	4.8	234	99-2800	7-3x11½	Y	Fu 5A380	5	Cla B805	SF	H	5.75*7.16	Cla F320	L4IHV	380	660	a	CD	91½	8x3x¼	T
97		42T	3-6	2925	137	157	32000	7000	9.00/20D	9.75/20	Bud K369	6-4 5/16x4¾	369	4.8	234	99-2800	7-3x11½	Y	Fu 5A380	5	Wis 72000H	2F	H	5.00*7.27	Cla F320	L4IHV	380	660	a	CD	62	8x3x¼	T
98		43A	4-8	3365	166	195	26000	7050	9.75/20D	10.50/20	Bud K428	6-4⅝x4¾	428	4.8	280	107-2600	7-3x11½	Y	Fu 5A620	5	Wis 72000H	2F	H	5.00*7.27	Shu 632	L4IHV	532	786	a	CD	91½	8x3x¼	T
99		43T	4-8	3540	137	157	38000	7350	9.75/20D	10.50/20	Bud K428	6-4⅝x4¾	428	4.8	280	107-2600	7-3x11½	Y	Fu 5A620	5	Wis 1337BH	2F	H	5.63*8.59	Shu 632	L4IHV	620	894	a	CD	62	8x3x¼	T
100		70K	3	3990	134	134	21000	8450	9.00/20D	9.75/20	Bud K369	6-4 5/16x4¾	369	4.8	234	99-2800	7-3x11½	Y	Fu 5A380	5	Wis 1337BQ1	2F	H	5.63*8.59	Shu 610	W2IM	405	542	a	TD	65	7x3⅝x¼	I
101		87K	3½	4875	134	134	24500	8156	9.75/20D	10.50/20	Bud K428	6-4⅝x4¾	428	4.8	280	107-2600	7-3x11½	Y	Spl 5341	4	Wis 1337BQ1	2F	H	5.63*8.59	Shu 610	W2IM	405	542	a	TD	72½	8x4x11/32	I
102		87Q	5	5975	134	134	30750	9600	11.25/24D	11.25/24	Bud K428	6-4⅝x4¾	428	4.8	280	107-2600	7-3x11½	Y	Spl 5341	4	Wis 1737Q-1	2F	H	5.75*9.15	Shu 655	W2IM	360	542	a	TD	72½	8x4x11/32	I
103		43L	5	4765	146	201	28105	8905	9.75/20D	10.50/20	Bud L525	6-4½x5½	525	4.8	340	111-2200	7-3x11½	Y	Fu 5A620	5	Wis 1737KW	2F	H	5.75*9.15	Shu 633	41A	556	816	a	CD	62	8x3x¼	T
104		97L	7½	6850	140	140	35620	10810	11.25/24D	12.00/20	Bud L525	6-4½x5½	525	4.8	340	111-2200	7-3x11½	Y	Fu 5A620	5	Wis 1910	2F	H	8.04*11.13	Shu 655	W2IM	360	542	a	TD	81	8x4x¼	I
105	Indiana	84	1-1½	675	131	180	.....	3250	6.00/20S	7.00/20	Her OOB	4-3¾x4¼	199	5.5	132	50-2800	3-2x7 1/16	Y	WG T9	4	Tim 53300H	SF	H	5.14-5.66	Tim 30020H	L4IH	250	424	G	TX	51⅝	7 11/16x2½x3/16	T
106		86	1½-2	695	131	192	.....	3300	6.00/20S	7.50/20	Her JXB	6-3⅝x4¼	263	5.4	164	68-2800	7-2½x10 11/16	Y	WG T9	4	Tim 53300H	SF	H	5.14-6.6	Tim 30020H	L4IH	250	424	G	TX	51⅝	7 11/16x2½x3/16	T
108		87	2	895	131	192	.....	4000	6.50/20D	8.25/20	Her-JXB	6-3⅝x4¼	263	5.4	164	68-2800	7-2½x10 11/16	Y	WG-T9	4	Tim.54413AI	SF	H	5.85-6.8	Tim 30020H	L4IH	250	424	G	TX	51⅝	7 11/16x2½x3/16	T
110		95	2	1425	141	186	.....	4400	32x6D	7.50/20	Her JXC	6-3¾x4¼	282	5.4	176	73-2800	7-2½x10 11/16	Y	BL 2353	4	Tim 54300H	SF	H	4.86-6.8	Tim 31020H	L4IHV	356	452	G	TX	56	7 1/16x2½x3/16	T
111		95DR	2½-3½	1525	141	200	.....	4650	7.50/20D	8.25/20	Her JXC	6-3¾x4¼	282	5.4	176	73-2800	7-2½x10 11/16	Y	BL 2353	4	Wis 5000L	2F	H	6.00-6.62	Tim 31020H	L4IH	330	578	G	TX	56	7 1/16x2½x3/16	T
112		17A	3½-5	2300	156	212	.....	6300	8.25/20D	9.00/20	Her WXC	6-4x4½	339	4.7	210	76-2400	7-2⅝x13¼	Y	BL 3341	5	Tim 58205H	SF	H	6.14-6.83	Shu 5572	L4IH	399	659	G	TX	69⅝	8x3x¼	T
113		17ADR	4-5	2475	156	212	.....	6350	8.25/20D	9.00/20	Her WXC	6-4x4½	339	4.7	210	76-2400	7-2⅝x13¼	Y	BL 3341	4	Wis 72000L	2F	R	6.36-7.27	Shu 5572	L4IHV	399	659	G	CD	69⅝	8x3x¼	T
114		17	4-5	2450	170	224	.....	6600	8.25/20D	9.00/20	Her YXC	6-4⅝x4¾	428	4.4	283	94-2200	7-3x14	Y	BL 3341	4	Tim 58205H	SF	R	6.14-6.83	Shu 15582B	L4IHV	395	659	G	CD	83	8⅛x3x3/16	T
115		17DR	4-5	2675	170	224	.....	6700	8.25/20D	9.00/20	Her YXC	6-4⅝x4¾	428	4.4	283	94-2200	7-3x14	Y	BL 3341	4	Wis 72000L	2F	R	6.36-7.27	Shu 15582B	L4IHV	395	659	G	CD	83	8⅛x3x3/16	T
116		19DR	4½-5½	3400	170	224	.....	7600	9.00/20D	10.50/20	Her YXC	6-4⅝x4¾	428	4.4	283	94-2200	7-3x14	Y	BL 5241	4	Wis 1337H	2F	R	6.65-8.59	Shu 15582B	L4IHV	489	768	G	CD	83	8⅛x3x3/16	T
117	(D)	20DR	4½-5½	5750	170	224	.....	9300	9.00/20D	9.75/20	Her DRXB	6-4⅝x5¼	474	...	350	125-2200	7-3x13¼	Y	BL 5341	4	Wis 1337W	2F	R	7.27-8.59	Shu 15583B	W4IA	540	843	G	CD	83	8⅛x3x3/16	T
118		22DR	5-6½	3600	172	196	.....	7790	9.00/20D	9.75/20	Her YXC	6-4⅝x4¾	428	4.4	283	94-2200	7-3x14	Y	BL 5352	5	Wis 1337BH	2F	R	5.63-8.59	Shu 15682B	L4IHV	489	768	G	CD	101 1/16	8⅛x3x3/16	T
123	International	C1	½	415	113	125	4400	2205	6.00/16S	7.00/15-S	Own HD-1	6-3 5/16x4⅛	213	6.4	151	79-3400	4-2⅝x6 11/16	N	Own HDS	3	Own R-56H	S½	H	3.72-4.18	Own F-50½H	B4IH	191	264	c	2I	29¼	5¾x2¼x5/16	T
♦124		C-5	½	415	113	125	4400	2100	6.00/16S	7.00/15	Wau FC132	4-3¼x4	133	6.1	89	33-2700	3-2¼x4⅛	N	Own HDS	3	Own R-56H	S½	H	** 5.11	Own F-50½H	B4IH	191	264	c	2I	29¼	5¾x2½x¼	T
125		C-15	¾-1	545	136	136	6500	2746	7.00/16S	7.50/16S	Own HD2	6-3 5/16x4⅛	213	6.4	151	79-3400	4-2⅝x6 11/16	N	Own HDS	3	Own HDR-60	SF	H	** 4.87	Own HDF-51	B4IH	216	308	c	2I	52¼	6½x2½x11/32	T
126		M3	1	850	118	118	7100	3280	6.50/20S	7.00/20	Wau XAH	4-3⅝x4½	186	4.6	125	42-2400	3-2x6⅞	N	Own H4A	4	Own 708H	SF	H	** 6.16	Own 102½H	B4IH	216	308	c	TX	....	6x2¾x¼	T
127	(3)	C20	1½	590	133	157	8300	3089	6.00/20S	6.50/20	Wau XAH	4-3⅝x4½	186	4.6	125	42-2400	3-2x6⅞	N	Own H4A	4	Own 708H	SF	H	5.28-6.16	Own 102H	B4IH	216	308	c	TX	52½	7x2¾x5/16	T
128	(3)	C30	1½	610	133	172	11500	3210	30x5‡S	7.50/20	Own HD-3	6-3 5/16x4⅛	213	6.4	151	79-3400	4-2⅝x6 11/16	N	Own H4A	4	Own H-725 H	SF	H	5.28-6.60	Own H-103 H	B4IH	291	412	c	TX	52½	7x2¾x5/16	T
129		CS30	1½	705	133	172	11600	3293	30x5‡S	7.50/20	Own HD3	6-3 5/16x4⅛	213	6.4	151	79-3400	4-2⅝x6 11/16	N	Own H4A	4	Own 730H	SF	H	5.14-8.10	Own H-103 H	B4IH	291	412	c	TX	52½	7x2¾x5/16	T
130	(e.u.s.)	C300	1½	695	99	117	12000	3345	30x5‡S	36x8	Own HD4	6-3 5/16x4⅛	213	6.4	151	79-3400	4-2⅝x6 11/16	N	Own H4A	4	Own H725H	SF	H	5.28-6.60	Own 275	B4IH	291	411	c	TX	83½	6½x2⅝x5/16	T
131		C35	1½-2	795	136	175	12500	3594	30x5‡S	7.50/20	Ow FAB223	6-3 7/16x4	223	5.4	160	78-3400	4-2⅝x5 11/16	N	Own H4A	4	Own H-735 H	SF	H	5.62-7.40	Own H-108 H	B4IH	291	412	c	TX	52½	7x2⅝x5/16	T
132		CS35	1½-2	890	136	175	12500	3712	30x5‡S	7.50/20	Ow FAB223	6-3 7/16x4	223	5.4	160	78-3400	4-2⅝x5 11/16	N	Own H4A	4	Own 730½H	SF	H	5.14-8.10	Own H-108 H	B4IH	291	412	c	TX	52½	7x2¾x5/16	T
133		C40	2-3	1145	145	185	14500	4362	6.50/20D	34x7	Ow FAB223	6-3 7/16x4	223	5.4	160	78-3400	4-2⅝x5 11/16	N	Own F5	5	Own H-755 H	SF	H	5.62-7.40	Own H-108 H	B4IH	339	478	c	TX	61½	8x3¼x5/16	T
134		CS40	2-3	1280	145	185	14500	4448	6.50/20D	34x7	Ow FAB223	6-3 7/16x4	223	5.4	160	78-3400	4-2⅝x5 11/16	N	Own F5	5	Own 731H	SF	H	5.14-8.10	Own H-108 H	B4IH	339	478	c	TX	61½	8x3¼x5/16	T
135		C50	3-4	1835	145	185	17000	5650	32x6D	36x8	Ow FBB279	6-3⅝x4½	279	4.7	191	83-2900	7-2 11/16x11 11/16	Y	Own H5	5	Own 905H	SF	H	6.14-7.2	Own 251H	B4IHV	376	532	c	TX	59¾	8x3¾x¼	T
136		CS50	3-4	1985	145	185	17000	5725	32x6D	10.50/20	Ow FBB279	6-3⅝x4½	279	4.6	191	83-2900	7-2 11/16x11 11/16	Y	Own H5	5	Own 950H	SF	H	5.60-8.74	Own 251H	B4IHV	376	532	c	TX	59¾	8x3¾x¼	T
137		C55	3½-4½	2490	140	210	21500	6606	34x7D	10.50/20	Ow FBB298	6-3¾x4½	298	5.7	214	90-2800	7-2 11/16x11 11/16	Y	Own H5	5	Own 1006H	SF	H	6.43-7.16	Own 300H	B4IHV	477	678	c	TX	54¾	8⅛x3¾x3/16	T
138		C60	4-5	2615	140	210	21500	6685	34x7D	10.50/20	Ow FBB298	6-3¾x4½	298	5.7	214	90-2800	7-2 11/16x11 11/16	Y	Own H5	5	Own 1154H	2F	H	7.1-9.43	Own 300H	B4IHV	477	678	c	TX	54¾	8⅛x3¾x3/16	T
139		A7	5-7½	6500	160	225	37000	11590	9.75/20D	11.25/24	Own FDB	6-4½x5½	525	4.5	358	123-2200	7-3¼x17¾	Y	Own H7	5	Own 1301	2F	H	4.95-7.98	Own 503	T4IA	720	961	c	TD	72	12⅛x3½x⅜	T
140		A8	7½	6600	160	225	37000	11590	9.75/20D	11.25/24	Own FEB	6-5x5½	648	4.4	460	140-2100	7-3¼x17¾	Y	Own H7	5	Own 1301	2F	H	4.95-7.98	Own 503	T4IA	720	961	c	TD	72	12⅛x3½x⅜	T
141	Kenworth	88	2	1582	146	200	15000	4400	32x6D	8.25/20	Her JXC	6-3¾x4¼	282	5.7	194	83-2500	7-2½x10 11/16	N	BL 2341	4	Tim 54411H	SF	H	5.8-6.8	Tim 31000H	L4IH	388	578	a	TX	60	8x3x¼	C
142		89	2½	1792	146	200	18000	4830	7.50/20D	9.00/20	Her JXC	6-3¾x4¼	282	5.7	194	83-2500	7-2½x10 11/16	N	BL 2341	4	Tim 56410H	SF	H	6.16-7.4	Tim 31000H	L4IH	388	578	a	TX	60	8x3x¼	C
143		127	2½-3	2425	154	202	19500	6500	8.25/20D	9.75/20	HerWXC2	6-4x4¾	360	4.5	212	90-2400	7-2⅝x13¼	N	BL 3341	4	Tim 56410H	SF	H	6.16-7.4	Tim 33000H	L4IH	388	578	a	FD	72	8x3x¼	C
144		90	3	1984	146	200	19200	6380	7.50/20D	9.00/20	Her JXC	6-3¾x4¼	282	5.7	194	83-2500	7-2½x10 11/16	N	BL 2341	4	Tim 58206H	SF	H	6.8-7.8	Tim 31000H	L4IH	436	660	a	TX	60	8x3x¼	C
145		128	3-4	2750	165	206	20700	6450	9.00/20D	9.75/20	Her WXC2	6-4⅛x4½	360	8.5	250	100-2400	7-2⅝x13¼	N	BL 3341	4	Tim 58206H	FS	H	6.8-7.8	Tim 33000H	L4IH	455	660	...	FD	83	8x3x½	C
146		146B	3-4	2827	158	206	20700	6600	9.00/20D	9.75/20	Bud K393	6-4 1/16x4¾	393	4.9	260	103-2600	7-3x11½	N	BL 3341	4	Tim 58206H	FS	H	6.8-7.8	Tim 33000H	L4IHV	436	660	a	FD	72	8x3x½	C
147		186	4-5	4435	155	221	26300	8600	9.75/20D	10.50/20	Her YXC2	6-4½x4¾	453	4.8	300	98-2200	7-3x14	Y	BL 5341	4	Tim 75736	2F	H	6.85-8.64	Tim 35100H	L4IHV	498	867	a	FD	72	8x3x½	C
148		241	5-7	5261	169	221	35000	8590	9.75/20D	10.50/20	Her RXC	6-4½x5¼	529	4.9	348	110-2200	7-3x12½	Y	BL 5341	4	Tim 76736	2F	H	6.02-8.5	Tim 36020N	Ws2Im	498	596	a	FD	84	8x3x½	C
149		241A	5-7	6153	169	228	35000	9000	9.75/20D	10.50/20	HaS 160-1	6-4¼x5½	468	4.4	322	112-2200	4-2¾x10⅜	Y	BL 5341	4	Tim 76736	2F	H	6.02-8.5	Tim 36020N	Ws2Im	436	596	a	FD	84	8x3x½	C
150		241C	5-7	8333	174	228	35000	10530	9.75/20D	10.50/20	Cum HB6	6-5x6	707	17.	420	125-1800	7-3¼x13⅜	Y	BL 7341	4	Tim 76730	2F	H	6.02-8.5	Tim 36020N	Ws2Im	436	596	a	FD	84	8x3x½	C
151	Kleiber	80	1½-2½	1900	140	160	11200	3950	7.00/20D	7.50/20	Her JXB	6-3⅝x4¼	263	5.4	164	68-2800	7-2½x10 11/16	N	BL 2241	4	Tim 53200H	BF	H	5.14-6.6	Tim 30000H	L4IH	308	308	G	TD	74	5⅝x3¼x¼	C
152		100	2-3½	2100	158	170	13400	4400	7.50/20D	8.25/20	Her JXB	6-3⅝x4¼	263	5.4	164	70-3000	7-2½x10 11/16	N	BL 3241	4	Tim 54200H	BF	H	5.81-6.8	Tim 31000H	L4IH	354	354	G	TD	82	7½x3¼x¼	T
153		120	2½-4½	2900	170	180	16300	5150	8.25/20D	9.00/20	Con E601	6-3⅞x4½	318	4.6	204	80-2700	7-2⅝x12 11/16	N	BL 3241	4	Tim 56200H	BF	R	6.17-7.4	Tim 31000H	L4IHV	452	452	G	TD	96	7½x3¼x¼	T
154		140	3-5½	3500	180	190	20700	6500	9.00/20*D	9.75/20	Con 18R	6-4x4½	339	4.2	212	90-2700	7-2¾x13 1/16	N	BL 3241	4	Tim 58200H	BF	R	5.47-7.8	Tim 33020H	L4IHV	648	648	G	TD	104	7½x3¼x¼	C
155		210	4-6	4875	190	200	22000	7600	9.75/20§D	10.50/20	Con 21R	6-4⅜x4¾	427	4.2	270	118-2500	7-2¾x13 1/16	N	BL 5241	4	Tim 75733H	2F	R	7.25-8.64	Tim 35020H	L4IHV	676	676	G	FD	108	7½x3¼x¼	C
156	(D)	KDB-6	4	5750	190	200	22000	8000	9.00/20D	10.50/20	Cum H Die.	4-4⅞x6	448	17.	280	83-1800	5-3¼x12	N	BL 5351	4	Tim 75733W	2F	R	** 5.5	Tim 35120W	Ws4IA	676	676	G	FD	108	7½x3¼x¼	C
157	(D)	KD6	6	9200	206	210	26000	9500	9.75/20D	10.50/24	Cum.6HDie	6-4⅞x6	672	17.	420	125-1800	7-3¼x16½	N	BL 714	4	Tim 76720W	2F	R	** 5.5	Tim 26450W	Ws4IA	848	848	G	FD	130	8⅛x3½x5/16	C
158	La Fr. Republic	C3	2-2½	1905	177	207	13000	4900	7.00/20D	8.25/20	Wau 6BK	6-3¾x4¼	282	5.4	185	84-3200	7-2⅝x10¼	N	WG T9	4	Tim 53300H	SF	R	4.86-6.6	Tim 33000H	L4IH	256	616	a	TX	91	10x3¼x¼	L
159		D4	2½-3	2055	177	207	15000	5150	7.00/20D	8.25/20	Wau 6BK	6-3¾x4¼	282	5.4	185	84-3200	7-2⅝x10¼	N	Own	4	Tim 54410H	SF	R	4.13-6.8	Tim 33000H	L4IHV	328	672	a	TX	91	10x3¼x¼	L
160		E4	3-4	2305	177	207	17000	5475	7.50/20D	9.00/20	Wau 6BK	6-3¾x4¼	282	5.4	185	84-3200	7-2⅝x10¼	N	Own	4	Tim 56200H	SF	R	5.29-7.4	Tim 33000H	L4IHV	328	754	a	TX	91	10x3¼x¼	L
161		F4	3½-4½	2915	177	207	22000	6525	8.25/20D	9.75/20	Wau 6MK	6-4⅛x4¾	381	6.1	258	85-2500	7-2⅝x12½	Y	Own	5	Tim 58205H	SF	R	5.72-7.8	Tim 33000H	L4IHV	370	794	a	TX	91	10x3¼x¼	L
162		H6	4-5	3175	177	207	22000	7175	9.00/20D	9.75/20	Wau 6MK	6-4⅛x4¾	381	6.1	258	85-2500	7-2⅝x12½	Y	Own	5	Wis 72000L	2F	R	5.77-8.4	Tim 33000H	L4IHV	370	770	a	TX	91	10x3¼x¼	L
163		K1	5-6	4825	195	225	26000	8235	9.75/20D	10.50/24	Wau 6SRL	6-4⅜x5⅛	462	4.5	300	102-2400	7-3x13⅞	Y	Own	4	Tim 75733H	2F	R	6.85-9.4	Tim 35100H	L4IHV	487	990	a	TX	107	12x3¼x¼	L
164		M4	6-7	5225	195	225	32000	8685	9.75/20D	11.25/24	Wau 6-125	6-4⅜x5⅛	462	5.0	324	125-2400	7-3x13⅞	Y	Own	4	Tim 76733H	2F	R	6.86-9.2	Tim 35100H	L4IHV	487	1030	a	TX	107	12x3¼x¼	L
165	Le Moon	207	2	1275	140	178	13200	3600	6.50/20S	32x6	Wau 6BL	6-3½x4¼	245	5.1	165	73-3000	7-2⅝x10¼	N	WG T9	4	Tim 53300H	SF	H	4.85-6.6	Tim 30000H	L4IH	275	380	C	TX	81	8x3½x¼	TFC
166	(8)	307	2½-3½	1385	163	190	15000	4200	6.50/20D	8.25/20	Wau 6BL	6-3½x4¼	245	5.1	165	73-3000	7-2⅝x10¼	N	WG T9	4	Tim 54410H	SF	H	5.83-6.8	Tim 31000H	L4IHV	355	460	C	TX	81	8x3½x¼	TFC
167	(8)	407	3-4	1900	163	190	17000	5000	7.50/20D	9.00/20	Wau 6BK	6-3¾x4¼	282	5.1	190	85-3200	7-2⅝x10¼	N	BL 234	4	Tim 56200H	SF	H	7.4-6.16	Tim 32502H	L4IHV	355	582	C	TX	81	8x3½x¼	TFC
168	(8)	507	4-5	2350	163	190	19500	6000	8.25/20D	9.75/20	Wau 6MK	6-4⅛x4¾	381	4.8	244	85-2400	7-2⅝x12½	N	BL 3341	4	Tim 58205H	SF	H	6.14-7.8	Tim 32502H	L4IHV	385	660	C	TD	81	9x4x¼	TFC
169		508	4-5	2500	163	190	19500	6000	8.25/20D	9.75/20	Wau 6-110	6-4x4¾	358	5.1	254	110-2800	7-2 11/16x12½	Y	BL 3341	4	Tim 58205H	SF	H	6.14-7.8	Tim 32502H	L4IHV	385	660	C	TD	81	9x4x¼	TFC
170		510	4-5	2700	163	190	19500	6000	8.25/20D	9.75/20	Wau 6-110	6-4x4¾	358	5.1	254	110-2800	7-2⅞x12½	Y	BL 3341	4	Tim 58205H	SF	H	6.14-7.8	Tim 32502H	L4IHV	385	660	c	TD	81	9x4x¼	TFC
171	(8)	607	5-6	3250	163	190	24000	7000	9.00/20D	9.75/20	Wau 6SRL	6-4⅜x5⅛	462	5.1	300	102-2400	7-3x13⅞	Y	BL 5351	4	Tim 65725H	WF	H	6.0-7.75	Tim 35000H	L4IHV	462	768	C	TD	81	9x4x¼	TFC
172	(c.o.e.)	1100	Tractor	6500	86	137	.....	9300	9.75/20D	10.50/20	Wau 6RB	6-5x5¾	677	4.6	460	127-2000	4-3½x11¾	Y	BL 7341	4	Tim 66725W	WF	H	9.0-10.2	Ti 26050TW	Ws4IA	876	1050	C	TD	60	9x4x¼	TFC

‡ Rear 32 x 6 * Rear 8.25/20 § Rear 9.00/20 ♦ Denotes New Models or Change in Specifications.

For abbreviations see page 305

Line Number	MAKE AND MODEL	GENERAL (See Keynote) Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight with Max. Tires	Chassis Wt. (Stripped)	TIRE SIZES D-dual rear S-single rear Standard Front and Rear	Maximum Tire Size Furnished	ENGINE DETAILS Make and Model	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Main Bearings Number, Diameter and Length	Governor Standard	TRANSMISSION Make and Model	Forward Spd's	REAR AXLE Make and Model	Gear and Type	Drive & Torque	Gear Ratio Range in High	FRONT AXLE Make and Model	BRAKES SERVICE Make Location Type Operat'n	Lining Area	Drum Area	Drum Material	Hand Location Type	C-A Dimensions (Std. W. B.)	FRAME Side Rail Dimensions	Type
♦ 1	Mack, Jr. (*)2M4A		575	114	120	4500	2880	6.00/16S	6.50/16	Own MR140	4–3 7/8 x4 3/4	140	5.4	98	45–2800	3–2 1/4 x4	N	WG 84C	3	Own MR45	SF	H	4.55–4.90	Own MR2	L41H	198	242	C	TX	38 3/4	5 7/8 x2 1/4 x 7/8	C
2	(*)2M6A		600	114	120	4500	2975	6.00/16S	6.50/16	Own MR209	6–3 7/8 x4 3/4	209	5.4	145	72–3000	4–2 1/4 x5	N	WG 84C	4	Own MR45	SF	H	4.55–4.90	Own MR2	L41H	198	242	C	TX	38 3/4	5 7/8 x2 1/4 x 7/8	CCCC
♦ 3	(*)2M6AS		665	114	120	5000	3180	6.00/16S	7.00/16	Own MR209	6–3 7/8 x4 3/4	209	5.4	145	72–3000	4–2 1/4 x5	N	WG 86	4	Own MR5	FF	H	**5.10	Own MR2	L41H	213	327	C	TX	38 3/4	5 7/8 x2 1/4 x 7/8	CCCCC
♦ 4	10MF		795	108	166	10000	3090	6.00/20†S	7.50/20	Own MR209	6–3 7/8 x4 3/4	209	5.4	145	72–3000	4–2 1/4 x5	N	OwnMR1B	4	Own MR10	FF	H	5.28–6.6	Own MR10	L41H	295	366	C	TX	57	7 1/8 x2 3/8 x 7/8	CCCCCC
♦ 5	11M		675	139	190	11000	3140	6.00/20†S	7.50/20	Own MR209	6–3 7/8 x4 3/4	209	5.4	145	72–3000	4–2 1/4 x5	N	OwnMR1B	4	Own MR11	FF	H	5.28–6.6	Own MR11	L41H	338	366	C	TX	57 1/2	7 1/8 x2 3/8 x 7/8	CCCCC
♦ 6	21M		835	139	190	12000	3565	6.00/20D	7.50/20	Own MR228	6–3 3/8 x4 1/4	228	5.4	150	74–3000	7–2 3/8 x10	N	OwnMR1D	4	Own MR12	FF	H	5.28–6.6	Own MR12	L41H	338	366	C	TX	57 1/2	7 1/8 x2 3/8 x 7/8	CCCC
♦ 7	31M		1095	142	190	14500	3827	6.50/20D	8.25/20	Own MR268	6–3 3/4 x5	268	5.2	175	85–3000	7–2 5/8 x10	N	OwnMR2B	4	Ow MRdr145	FF	H	5.28–6.6	Own MR21	L41HV	410	523	C	TX	60 1/2	7 1/8 x3 1/4	CCC
♦ 8	31MDR		1205	142	190	14500	4077	6.50/20D	8.25/20	Own MR268	6–3 3/4 x5	268	5.2	175	85–3000	7–2 5/8 x10	N	OwnMR2B	4	Ow MRdr145	FF	H	6.62–8.21	Own MR31	L41HV	410	523	C	TX	60 1/2	7 1/8 x3 1/4	CC
9	Mack EH		2095	158	194	18000	6000	7.00/20D	9.00/20	Own BG	6–3 5/8 x5	310	5.4	202	90–3000	7–2 5/8 x10	Y	Own BF	5	Own BG	SF	H	4.90–6.71	Own BG	O4IMV	427	704	a	FX	72 1/2	7 1/8 x3 1/8	T
10	(a) BG		2500	156	192	20000	6500	7.50/20D	34x7	Own BG	6–3 5/8 x5	310	5.4	202	90–3000	7–2 5/8 x10	Y	Own BF	5	Own BF	2F	H	6.54–8 92	Own BF	O4IMV	431	709	a	FX	102 1/2	8 1/2 x3 1/4	T
11	BF		3450	174	210	23000	8100	8.25/20D	9.75/20	Own CU	6–3 3/4 x5	354	5.4	237	100–2800	7–2 5/8 x10	Y	Own BF	5	Own BX	2F	H	6.54–8.92	Own BM	O4IMV	562	920	a	FX	102 1/2	8 1/2 x3 1/4	T
♦ 12	BM		4250	175	211	.....	9175	9.00/20D	9.75/22	Own CE	6–4x5 1/2	415	5.0	270	108–2400	7–3x12	Y	Own CF	5	Own BX	CD	R	6.0–9.67	Own BX	O4IMV	649	976	a	FX	120	9 1/2 x3 1/4	T
13	BX		6250	189	225	.....	11200	9.75/22D	10.50/24	Own CF	6–4 1/4 x5 1/2	468	5.0	310	118–2400	7–3x12	Y	Own CF	5	Own AK	2F	H	6.54–8.92	Own BX	O4IMV	619	976	a	FX	120	9 1/2 x3 1/4	T
♦ 14	BX		5250	189	225	.....	10925	9.75/22D	10.50/24	Own CF	6–4 1/4 x5 1/2	468	5.0	310	118–2400	7–3x12	Y	Own AK	4	Own BQ	2F	H	7.43–10.0	Own BQ	O4IMV	781	1194	a	FX	120	10 1/2 x3 3/4	T
15	BQ		7600	194	230	.....	12500	10.50/24D	11.25/24	Own BQ	6–4 3/4 x5 3/4	611	4.8	390	125–2200	4–3 1/2 x10	Y	Own AK	4	Own BQ	2F	H	7.43–10.0	Own AK	O4IA	781	1194	a	FX	102	8 1/2 x3 1/8	T
16	AK		7600	186	240	.....	12700	10.50/24D	11.25/24	Own BQ	6–4 3/4 x5 3/4	611	4.8	390	125–2200	4–3 1/2 x10	Y	Own AK	4	Own AC	CD	R	8.95–11.5	Own AK	O4IMV	781	1194	a	T	120	8 1/2 x3 1/8	T
17	AC		6150	192	228	.....	13425	36x6†D	13.50/24	Own AC	4–5x6	471	3.9	300	74–1600	3–3x10 1/2	Y	Own AC	4	Own AC	CD	R	8.95–11.5	Own AK	O4IA	781	1194	a	T	102	8 1/2 x3 1/8	T
18	AC		8250	186	240	.....	14200	10.50/24D	13.50/24	Own BQ	6–4 1/4 x5 3/4	611	4.8	390	125–2200	4–3 1/2 x10	Y	Own AC	4	Own AC	CD	R	8.95–11.5	Own AK	O4IA	781	1194	a	T	102	8 1/2 x3 1/8	T
19	AP		9000	191	216	.....	14500	36x7††D	13.50/24	Own AP	6–5x6	707	4.8	427	138–1900	4–3 1/2 x11	Y	Own AC	4	Own AC	CD	R	8.95–11.5	Own AK	O4IA	781	1194	a	T	102	8 1/2 x3 1/8	T
20	*(e.b.s.) EC		3600	117	171	20000	7200	7.50/20D	9.00/20	Own BG	6–3 5/8 x5	310	5.4	202	90–3000	7–2 5/8 x10	Y	Own BF	5	Own BG	SF	H	4.90–6.71	Own EC	O4IMV	427	704	a	TX	93	8 1/4 x3 1/2	T
21	*(e.b.s.) EB		4250	117	171	23000	7900	8.25/20D	9.75/20	Own CU	6–3 7/8 x5	354	5.4	237	100–2800	7–2 5/8 x10	Y	Own BF	5	Own BF	2F	H	6.54–8.92	Own EB	O4IMV	437	709	a	FX	93	8 1/2 x3 1/4	T
♦ 22	*(e.b.s.) CH		5150	135	189	.....	10225	9.00/20D	9.75/22	Own CE	6–4x5 1/2	415	5.0	270	108–2400	7–3x12	Y	Own BX	5	Own BX	2F	H	6.54–8.92	Own CH	O4IMV	562	920	a	FX	111	8 1/2 x3 1/4	T
♦ 23	*(e.b.s.) CJ		6100	135	189	.....	10750	9.75/22D	10.50/24	Own CF	6–4 1/4 x5 1/2	468	5.0	310	118–2400	7–3x12	Y	Own CF	5	Own AK	2F	H	6.54–8.92	Own CJ	O4IMV	619	976	a	FX	111	9 1/2 x3 1/4	T
24	Menominee A-15	1 1/2	1485	144	160	8750	3750	7.00/20S	7.00/20S	Wau TL	6–3 5/8 x4 3/4	255	5.0	170	68–2600	4–2 1/2 x7 5/8	Y	Fu MKU10	4	Cla B373	SF	R	4.66–5.8	Cla 212	L41HV	377	440	P	TX	65	5 1/2 x3 1/4 x 1/4	CC
25	DX-6	2 1/2	2850	156	175	13760	5760	7.50/20S	7.50/20S	Wau 6-90	6–3 5/8 x4 3/4	255	5.4	182	90–3200	4–2 5/8 x7 1/8	Y	BL 234	4	Wis 6617	2F	R	5.33–8.33	Shu 5532	L41HV	580	672	G	TD	68	6x2 1/4 x 1/8	CC
26	DN-6	3	3275	156	175	15200	6200	8.25/20D	8.25/20	Wau MK	6–4 1/4 x4 3/4	381	4.8	240	85–2500	7–2 5/8 x12 1/2	Y	BL 524	4	Wis 8817	2F	R	6.2–10.5	Shu 5532	L41HV	662	770	G	TD	68	6x2 1/4 x 1/8	CP
27	A30	3	3275	165	185	15035	7035	8.25/20D	8.25/20	Wau MK	6–4 1/4 x4 3/4	381	4.8	240	85–2500	7–2 5/8 x12 1/2	Y	BL 528	8	Tim 58206H	8F	R	5.25–7.8	Shu 5532	L41HV	662	770	G	TD	86 1/2	8x3x 1/8	P
28	N-6	3 1/2	3715	165	185	16800	6800	8.25/20D	8.25/20	Wau 6-110	6–4 1/4 x4 3/4	358	5.2	254	110–2800	7–2 7/8 x10 3/4	Y	BL 524	4	Wis 1458	2F	R	6.39–8.95	Shu 5572	L41HV	770	898	G	TD	96	10x2 1/2 x 1/4	P
29	JX-6	5	4650	175	190	20200	7200	9.00/20D	9.00/20	Wau 6-125	6–4 3/4 x5 1/2	462	5.1	324	125–2600	7–3x13 3/4	Y	BL 724	4	Wis 8D210	2F	R	6.53–9.25	Shu 5582B	L61HV	1095	1267	G	TD	Opt	10x2 1/2 x 1/4	P
30	6W-8	8	5800	185	200	28600	11000	8.25/20D	8.25/20	Wau 6-125	6–4 3/4 x5 1/2	462	5.1	324	125–2600	7–3x13 3/4	Y	BL 724	4	Wis 8D210	2F	R	6.53–9.25	Shu 5582B	L61HV	1095	1267	G	TD	Opt	10x2 1/2 x 1/4	P
31	Moreland (4) R-170	3–4	2135	168	180	17000	4841	7.50/20D	8.25/20	Her JXCM	6–3 3/4 x4 1/4	282	5.3	197	85–2900	7–2 1/2 x10	N	Spi 2341	4	Tim 54411H	BF	H	** 5.56	Tim 32501H	L41H	345	578	a	TD	93 1/2	8x3 1/2 x 1/4	T
32	R-190	4–5	2575	180	180	19000	5241	8.25/20D	9.00/20	Her JXDM	6–4x4 1/4	320	5.6	224	95–2900	7–2 1/2 x10	N	Spi 3241	4	Tim 56411H	BF	H	** 6.16	Tim 32501H	L41H	387	659	a	TD	105 1/2	8x3 1/2 x 1/4	T
33	R-200	4 1/2–5 1/2	2695	180	180	20000	5441	8.25/20D	9.00/20	Her JXDM	6–4x4 1/4	320	5.6	224	95–2900	7–2 1/2 x10	N	Spi 3241	4	Tim 58205H	BF	H	** 6.16	Tim 32501H	L41H	387	659	a	TD	105 1/2	8x3 1/2 x 1/4	T
34	(4) E-220	6	3295	180	202	22000	6514	9.00/20D	9.75/20	Her WXC3	6–4 1/4 x4 1/2	383	5.0	265	106–2800	7–2 5/8 x13 1/4	N	Spi 5241	4	Tim57533TW	2F	H	** 7.37	Tim35100TW	L41H	531	867	a	CD	103 3/4	9 1/8 x3 3/8 x 3/8	T
35	(4) E-260	7	3665	180	202	36000	6914	9.00/20D	9.75/20	Her WXC3	6–4 1/4 x4 1/2	383	5.0	265	106–2800	7–2 5/8 x13 1/4	N	Spi 5241	4	Tim57533TW	2F	H	** 7.89	Tim26450TW	T41A	531	867	a	CD	115	9 1/8 x3 3/8 x 3/8	T
36	(4) H-300	9	4685	196	208	30000	8614	9.75/20D	9.75/20	Her RXB	6–4 1/2 x5 1/4	501	4.7	330	110–2200	7–3x12 1/2	N	Spi 5241	4	Tim76733TW	2F	H	** 7.89	Tim26450TW	T41A	531	867	a	CD	115	9 1/8 x3 3/8 x 3/8	T
37	Netco A	2–4	1800	157	190	15000	5500	7.50/20D	7.50/20	Wau BL	6–3 1/2 x4 1/4	245	5.0	165	73–3200	7–2 1/4 x10 1/4	Y	BL 224	4	Tim 54200H	8F	H	5.83–6.83	Tim 30020H	L41HV	306	575	c	TD	Opt	6x3x 1/4	CC
38	B	3–6	2400	160	200	20000	6500	8.25/20D	9.00/20	Wau BK	6–3 3/4 x4 3/4	282	5.0	180	84–3200	7–2 5/8 x10 1/4	Y	BL 3341	4	Tim 56300H	8F	H	6.83–7.71	Tim 31000H	L41HV	355	575	c	TD	Opt	6x3x 1/4	CC
39	C	4–7	2800	160	200	22000	7300	9.00/20D	9.75/20	Wau MK	6–4 1/4 x4 3/4	381	4.8	240	85–2500	7–2 5/8 x12 1/2	Y	BL 334	4	Tim 58200H	8F	H	6.83–7.75	Tim 33000H	L41HV	398	650	c	TD	Opt	7x3 1/2 x 1/4	CC
40	E	5–8	3400	157	212	24000	8100	9.75/20D	9.75/20	Wau MZ	6–4 1/4 x4 3/4	404	6.0	274	90–2400	7–2 5/8 x12 1/2	Y	BL 534	4	Tim 65720H	WF	R	7.75–8.25	Tim 33000H	L41HV	484	490	c	CD	Opt	9x3 1/2 x 1/4	CC
41	J	6–9	4600	157	212	30000	9200	10.50/20D	10.50/20	Lyc AEF	8–3 3/4 x4 3/4	420	5.2	300	120–2800	5–2 3/4 x12 3/4	Y	BL 534	4	Tim 76730	2F	R	8.50–9.25	Tim 35000H	W84IA	663	750	c	CD	Opt	9x3 1/2 x 1/4	CC
42	K	7–10	4900	168	212	32000	9900	10.50/24D	10.50/24	Wau SRK	6–4 1/2 x5 1/2	517	4.6	335	110–2300	7–3x13 3/4	Y	BL 724	4	Tim 78720	2F	R	9.92–10.3	Tim 27450	W84IA	757	760	c	CD	Opt	9x3 1/2 x 1/4	CC
♦ 43	Reo *4-50	1/2	555	114	120	4500	1973	6.00/16S	6.50/16	Own	4–3 7/8 x4 3/4	140	5.4	98	42–2800	3–2 1/4 x4	N	WG T84C	3	Spi	8 1/2	H	4.55–4.90	Own	L41H	198	242	C	TX	38 3/4	5 1/2 x2 1/4 x 7/8	CC
♦ 44	*6-50	1/2	555	114	120	4500	2053	6.00/16S	6.50/16	Own	6–3 7/8 x4 3/4	209	5.4	145	70–2800	4–2 1/4 x5	N	WG T86	3	Spi	8 1/2	H	4.55–4.90	Own	L41H	198	242	C	TX	38 3/4	5 1/2 x2 1/4 x 7/8	CCCC
♦ 45	*4-75	3/4	615	114	120	5000	2105	6.50/16S	7.00/16	Own	4–3 7/8 x4 3/4	140	5.4	98	42–2800	3–2 1/4 x4	N	WG T84C	3	Spi	8F	H	**5.10	Spi	L41H	213	327	C	TX	38 3/4	5 1/2 x2 1/4 x 7/8	CCCCC
♦ 46	*6-75	3/4	615	114	120	5000	2185	6.50/16S	7.00/16	Own	6–3 7/8 x4 3/4	209	5.4	145	70–2800	4–2 1/4 x5	N	WG T86	3	Spi	8F	H	**5.10	Spi	L41H	213	327	C	TX	38 3/4	5 1/2 x2 1/4 x 7/8	CCCCCC
47	1A4-1C4	1–1 1/2	605	139	166	9500	2805	6.00/20†S	7.00/20	Own	6–3 7/8 x4 1/4	209	5.4	145	70–2800	4–2 1/4 x5	N	.. Own	4	Own	8F	H	5.28–6.6	Own	L41H	246	366	C	TX	57 1/2	7 1/8 x2 3/8 x 7/8	CCCCC
48	1A4H-1C4H	1–1 1/2	645	139	166	9500	3135	6.00/20†S	7.00/20	Own	6–3 5/8 x4 1/4	228	5.4	150	73–3000	7–2 5/8 x10	N	.. Own	4	Own	8F	H	5.28–6.6	Own	L41H	246	366	C	TX	57 1/2	7 1/8 x2 3/8 x 7/8	CCCC
♦ 49	1B4-1D4	1 1/2–2 1/2	695	139	166	11500	3240	6.00/20†S	7.50/20	Own	6–3 5/8 x4 1/4	228	5.4	150	73–3000	7–2 5/8 x10	N	.. Own	4	Own	8F	H	5.28–6.6	Own	L41H	289	438	a	TX	57 1/2	7 1/8 x2 3/8 x 7/8	CCCC
50	1B4H-1D4H	1 1/2–2 1/2	775	139	166	11500	3328	6.00/20†S	7.50/20	Own	6–3 5/8 x5	268	5.5	160	81–2800	7–2 5/8 x10	N	.. Own	4	Own	8F	H	5.28–6.6	Own	L41H	289	438	a	TX	57 1/2	7 1/8 x2 3/8 x 7/8	CCCC
51	2B4–2D4	2–3	925	142	166	13500	3750	6.50/20D	8.25/20	Own	6–3 5/8 x5	268	5.5	178	83–2800	7–2 5/8 x10	N	.. Own	4	Own	8F	H	5.28–6.6	Own	L41H	349	523	a	TX	60 1/2	7 1/8 x3 1/8	CCCCC
52	2D4M	2–3	1075	166	166	14500	4020	6.50/20D	8.25/20	Own	6–3 5/8 x4 1/4	228	5.4	150	73–3000	7–2 5/8 x10	N	.. Own	4	Own	8F	H	5.28–6.6	Own	L41HV	289	438	a	TX	121 1/2	7 1/8 x3 1/4	CCCCCC
53	2D4MH	2–3 1/2	1155	166	166	14500	4120	6.50/20D	8.25/20	Own	6–3 5/8 x5	268	5.5	160	81–2800	7–2 5/8 x10	N	.. Own	4	Own	8F	H	5.28–6.6	Own	L41H	289	438	a	TX	121 1/2	7 1/8 x3 1/4	CCCCCC
♦ 54	2H5-2J5	2–4	1195	142	166	15000	4300	6.50/20D	8.25/20	Own	6–3 5/8 x5	268	5.5	178	83–2800	7–2 5/8 x10	Y	Own	4	Own	8F	H	6.14–7.17	Own	L41HV	407	660	c	FD	67 3/4	8 1/8 x3 1/4	CCCCC
55	3H5(3J5-3K5)	3–5	1745	153	205	18000	6280	7.50/20D	9.75/20	Own	6–3 5/8 x5	309	5.4	204	87–2800	7–2 5/8 x10	Y	Cla	5	Own	2F	H	** –8.5	Own	L41HV	407	660	c	FD	67 3/4	8 1/8 x3 1/4	CCCCCC
56	3HR5(3JR5-3KR5)	3 1/2–5	2065	153	205	20000	6470	7.50 20D	9.75/20	Own	6–3 5/8 x5	309	5.4	204	87–2800	7–2 5/8 x10	Y	BL	5	Own	2F	H	** –8.5	Own	L41HV	407	660	c	FD	67 3/4	10x3x 1/4	CC
57	4H5(4J5-4K5)	4–6	2775	156	205	22000	7270	8.25/20D	10.50/20	Buda	6–4 3/4 x4 3/4	428	4.7	284	104–2600	7–3x11 1/2	Y	BL	5	Own	2F	H	** –8.5	Own	L41HV	407	660	c	FD	67 3/4	10x3x 1/4	CC
♦ 58	Schacht 8A	1–1 1/2	1085	124	167	.....	4100	6.00/20S	7.50/20	Her JXB	6–3 5/8 x4 1/4	263	5.4	164	68–2800	7–2 1/2 x10	N	WG T9	4	Tim	8F	H	6.6–5.14	Tim	L41H	315	380	G	TX	Opt	8x3x 1/8	CCCC
♦ 59	10A	2	1185	130	172	.....	4350	6.50/20D	7.50/20	Her JXB	6–3 5/8 x4 1/4	263	5.4	164	68–2800	7–2 1/2 x10	N	WG T9	4	Tim	8F	H	6.6–5.14	Tim	L41HV	315	380	G	TX	Opt	8x3x 1/8	CCCCC
♦ 60	12A	2–3	1395	132	174	.....	4675	32x6D	32x6	Her JXB	6–3 5/8 x4 1/4	263	5.4	164	68–2800	7–2 1/2 x10	Y	Own	4	Tim	8F	H	6.6–5.66	Tim	L41HV	315	380	G	TX	Opt	8x3x 1/8	CCCCCC
♦ 61	15A	2 1/2–3 1/2	1645	137	179	.....	5075	7.50/20D	8.25/20	Her JXC	6–3 3/4 x4 1/4	282	5.3	176	73–2800	7–2 1/2 x10	Y	Fu 5A33	5	Tim	8F	H	5.88–6.8	Tim	L41HV	341	527	G	TX	Opt	8x3x 1/8	CCCCCC
♦ 62	(15) 18A	2 1/2–4	1895	137	179	.....	5200	7.50/20D	8.25/20	Her JXD	6–4x4 1/4	320	5.3	204	84–2400	7–2 1/2 x10	Y	Fu 5A330	5	Tim	8F	H	5.88–6.8	Tim	L41HV	341	527	G	TX	Opt	8x3x 1/8	CCCCCC
♦ 63	20A	3–5	2295	138	180	.....	5600	8.25/20D	9.00/20	Her JXD	6–4x4 1/4	320	5.3	204	84–2400	7–2 1/2 x10	Y	Fu 5A330	5	Tim	8F	H	4.44–7.4	Tim	L41HV	371	578	G	TD	Opt	8x3x 1/4	CCCCCC
♦ 64	25A	3 1/2–5 1/2	2845	145	188	.....	5790	8.25/20D	9.00/20	Her WXC2	6–4 1/2 x4 1/2	360	4.7	238	100–2800	7–2 5/8 x13 1/2	Y	Fu 5A38	5	Tim	8F	H	5.7–7.4	Tim	L41HV	371	578	G	TD	Opt	8x3x 1/4	CCCCCC
♦ 65	28A	4–5	3165	145	188	.....	6600	9.00/20D	9.75/20	Her WXC3	6–4 1/4 x4 1/2	383	4.4	265	106–2800	7–2 5/8 x13 1/4	Y	Fu 5A380	5	Tim	8F	H	6.14–7.8	Tim	L41HV	435	758	G	TD	Opt	8x3x 1/4	CCCCCC
♦ 66	110CU	1 1/2–2	1435	91	138	.....	5365	6.50/20D	7.50 20	Her JXC	6–3 3/4 x4 1/4	282	5.3	176	73–2800	7–2 1/2 x10	Y	Fu. 5A330	5	Tim	8F	H	6.6 –5.14	Tim	L42HV	315	380	G	TX	Opt	8x3x 1/8	CCCPC
♦ 67	(e.b.s.) 115CU	2 1/2–3 1/2	1785	91	152	.....	5575	7.50/20D	8.25/20	Her JXC	6–3 3/4 x4 1/4	282	5.3	176	73–2800	7–2 1/2 x10	Y	Fu 5A33	5	Tim	8F	H	5.88–6.8	Tim	L41HV	341	527	G	TX	Opt	8x3x 1/8	CCCCCC
♦ 68	(e.b.s.) 120CU	3–5	2475	92	159	.....	6100	8.25/20D	9.00/20	Her JXD	6–4x4 1/4	320	5.3	204	84–2800	7–2 1/2 x10	Y	Fu 5A33	5	Tim	8F	H	4.44–7.4	Tim	L41HV	371	578	G	TD	Opt	8x3x 1/4	CCCCCC
♦ 69	(e.b.s.) 125CU	3 1/2–5 1/2	2985	96	166	.....	6290	8.25/20D	9.00/20	Her WXC2	6–4 1/2 x4 1/2	360	4.7	238	100–2800	7–2 5/8 x13 1/2	Y	Fu 5A38	5	Tim	8F	H	5.7–7.4	Tim	L41HV	371	578	G	TD	Opt	8x3x 1/4	CCCCCC
♦ 70	(e.b.s.) 128CU	4–5 1/2	3350	96	166	.....	7100	9.00/20D	9.75/20	Her WXC3	6–4 1/4 x4 1/2	383	4.4	265	106–2800	7–2 5/8 x13 1/4	Y	Fu 5A380	5	Tim	8F	H	6.14–7.8	Tim	L41HV	435	758	G	TD	Opt	8x3x 1/4	CCCCCC
♦ 71	(15) 35A	5–7	3595	146	227	.....	7260	9.75/20D	9.75/20	Her WXC3	6–4 1/4 x4 1/2	383	4.4	265	106–2800	7–2 5/8 x13 1/4	Y	Fu 5A380	5	Tim	8F	H	7.14–8.93	Tim	L41HV	508	768	H	TD	Opt	8 1/8 x3x 1/8	PPCCC
♦ 72	(15) 40A	6–8	4350	154	233	.....	7580	9.75/20D	10.50/20	Her YXC3	6–4 1/2 x4 3/4	478	4.4	318	103–2200	7–3x15	Y	Fu 5A62	5	Wis	2F	R	7.33–9.43	Tim	L41HV	508	780	H	TD	Opt	8 1/8 x3x 1/8	PPCCC
♦ 73	(15) 66A	8–11	5495	156	235	.....	9675	10.50/20D	10.50/24	Her RXC	6–4 1/2 x5 1/4	529	4.4	355	115–2200	7–3x15	Y	Fu 5A620	5	Wis	2F	R	7.33–9.43	Tim	L41HV	508	780	H	TD	Opt	8 1/8 x3x 1/8	PPCCC
♦ 74	75A	11	***				11650	40x10D	11.25/24	Her HXB	6–5x6	707	4.5	455	148–2000	7–3 1/2 x16 1/2	Y	Fu MHU	12	Wis	2F	R	7.14–8.93	Shu	L41HV	508	768	H	TD	Opt	8x3x 1/4	CCCCC
♦ 75	(T) TRA	12–15	4395	142	168	.....	6890	9.00/20D	9.75/20	Her YXC3	6–4 1/2 x4 3/4	478	4.4	318	103–2200	7–3x15	Y	Fu 5A62	5	Wis	2F	R	7.33–9.43	Tim	L41HV	508	780	H	TD	Opt	8x3x 1/4	CCCCC
♦ 76	(e.b.s.) (T) TRCU	12–15	4580	105	124	.....	7225	9.00/20D	9.75/20	Her YXC3	6–4 1/2 x4 3/4	478	4.4	318	103–2200	7–3x15	Y	Fu 5A620	5	Wis	2F	R	7.33–9.43	Tim	L41HV	508	780	H	TD	Opt	8x3x 1/4	CCCCC

† Rear 32 x 6

†† Rear 6.50/20 S.

AM

77	Ster. (c) FB50 De L	2-2½	1905	177	207	13000	4900	7.00/20D	8.25/20	Wau 6BK	6-3¾x4¼	282	5.2	188	85-3200	7-2⅝x10¼	N	WG T9	4	Own	SF	R	4.86-6.6	Tim 33000H	L41HV	256	616	a	TX	91	10x3¼x¼	L
78	(c) FB60 De L	2½-3	2055	177	207	15000	5150	7.00/20D	8.25/20	Wau 6BK	6-3¾x4¼	282	5.2	188	85-3200	7-2⅝x10¼	N	Own UC12	4	Own	SF	R	4.13-6.8	Tim 33000H	L41HV	328	672	a	TX	91	10x3¼x¼	L
79	(c) FB70 De L	3-4	2305	177	207	17000	5475	7.50/20D	9.00/20	Wau 6BK	6-3¾x4¼	282	5.2	188	85-3200	7-2⅝x10¼	N	Own UC6	4	Own	SF	R	5.29-7.4	Tim 33000H	L41HV	328	754	a	TX	91	10x3¼x¼	L
80	(b) FB80	3½-4½	2915	177	207	22000	6525	8.25/20D	9.75/20	Wau 6MK	6-4⅛x4¾	381	6.1	252	84-2500	7-2⅝x12½	Y	Own UC11	5	Own	SF	R	5.72-7.8	Tim 33000H	L41HV	370	794	a	TX	91	10x3¼x¼	L
81	(b) FD90	4-5	3175	177	207	22000	7175	9.00/20D	9.75/20	Wau 6MK	6-4⅛x4¾	381	6.1	252	84-2500	7-2⅝x12½	Y	Own UC11	5	Own	2F	R	5.77-8.4	Tim 33000H	L41HV	370	756	a	TX	93	10x3¼x¼	L
82	(c) FC90	4-5	3090	177	207	22000	6775	8.25/20D	9.75/20	Wau 6BK	6-3¾x4¼	282	5.4	185	84-3200	7-2⅝x10¼	N	BL2252	5	Own	CD	R	8.56-10.8	Tim 33000H	L41HV	370	1138	s	TX	91	10x3¼x¼	L
83	FD95	4½-5½	3640	177	207	26000	7850	9.75/20D	10.50/22	Wau 6MZ	6-4¼x4¾	404	5.7	267	89-2400	7-2⅝x12½	Y	BL5351	5	Own	2F	R	6.85-9.4	Tim 35000H	L41HV	478	892	a	TX	91	10x3¼x¼	L
84	FC95	4½-5½	3830	177	207	26000	7775	9.75/20D	10.50/22	Wau 6MZ	6-4¼x4¾	404	5.7	267	89-2400	7-2⅝x12½	Y	BL5351	5	Own	CD	R	8.56-10.8	Tim 35000H	L41HV	478	1138	s	TX	91	10x3¼x¼	L
85	(b) FD97	5-6	4825	195	225	26000	8235	9.75/20D	10.50/24	Wau 6SRL	6-4⅜x5⅛	462	4.6	302	102-2400	7-3x13⅞	Y	Own UC2	4	Own	2F	R	6.85-9.4	Tim 35100H	L41HV	487	990	a	TX	107	9x3¼x¼	L
86	(b) FD115	6-7	5225	195	225	32000	8685	9.75/20D	11.25/24	Wau 6-125	6-4⅜x5⅛	462	5.0	328	125-2400	7-3x13⅞	Y	Own UC2	4	Own	2F	R	6.86-9.2	Tim 35100H	L41HV	487	1030	a	TX	107	9x3¼x¼	L
87	(b) FC100	5-6	4480	195	225	26000	7835	9.75/20D	10.50/24	Wau 6SRL	6-4⅜x5⅛	462	4.6	302	102-2400	7-3x13⅞	Y	Own UC2	4	Own	CD	R	8.3-10.8	Tim 35000N	O2IMV	576	724	s	TX	105	9x3¼x¼	L
♦88	(b) FC135	6-7	5580	195	225	34000	8835	9.75/22D	10.50/24	Wau 6-125	6-4⅜x5⅛	462	5.0	328	125-2400	7-3x13⅞	Y	Own UC2	4	Own	CD	R	8.3-10.8	Tim 26450N	O2IMV	528	746	s	TX	105	9x3¼x¼	L
89	FD140	7-8	6240	195	225	.....	.....	10.50/20D	10.50/24	Wau 6SRK	6-4⅝x5⅛	517	4.5	331	110-2300	7-3x13⅞	Y	Own UC2	4	Own	2F	R	7.16-10.0	Tim 26450TW	Ws41A	574	1002	...	TX	107	9x3¼x¼	L
♦90	(b) HC140	7-8	5685	189	219	36000	9485	9.75/22D	10.50/24	Wau 6-125	6-4⅜x5⅛	462	5.0	328	125-2400	7-3x13⅞	Y	Own UC2	4	Own	CD	R	8.3-10.8	Tim 26452N	O2IMV	646	746	s	JX	107	9¼x3¼x¼	L
91	(b) HC170	9-10	7175	199	228	44000	10485	10.50/22D	13.50/24	Wau 6RB	6-5x5¾	677	5.3	470	145-2000	4-3½x11⅛	Y	Own UC9	4	Own	CD	R	8.2-9.92	Tim 27452N	O2IMV	704	746	s	JX	109	9¼x3¼x¼	L
92	Stewart.......40H	½	495	113	113	.....	2110	6.00/16D	6.50/16	Wau	4-3¼x4	133	6.1	98	35-2400	3-2⅛x4¼	N	WG	3	Spl	SF	H	5.1-4.27	Spl	L41H	216	388	c	T	44	6x2¼x⅛	T
93	60H	¾	545	128	128		2325	6.00/16D	6.50/16	Con	6 3x4	170	6.2	124	60-2800	4-2¼x5 11/16	N	WG	3	Spl	SF	H	5.1-4.27	Spl	L41H	216	388	c	T	52	6 1/16x2¼x⅛	T
♦94	45A	1½-2	645	134	188	11000	3490	6.00/20D	7.50/20	Wau	6-3⅜x4⅛	222	5.6	155	65-2800	4-2⅜x5⅝	N	WG	4	Cla	SF	H	5.5-6.8	Cla	L41H	260	472	a	T	54	8½x2¾x¼	T
♦95	45AS	1½-2½	845	144	188	11000	3590	6.00/20D	7.50/20	Wau	6-3⅜x4⅛	222	5.6	155	65-2800	4-2⅜x5⅝	N	WG	4	Eat	SF	H	5.83-8.11	Cla	L41H	285	522	a	T	64	8½x2¾x¼	T
♦96	47A	2-3	945	134	205	13000	4340	6.50/20D	8.25/20	Wau	6-3½x4¼	245	5.0	165	70-2800	7-2⅝x10¼	N	WG	4	Cla	SF	H	6.37-6.88	Cla	L41HV	266	512	a	T	54	8½x2¾x¼	T
♦97	50A	2½-3½	1145	134	205	14500	4490	6.50/20D	8.25/20	Wau	6-3⅝x4¼	263	5.6	175	77-2800	7-2⅝x10¼	N	WG	4	Cla	SF	H	6.37-6.88	Cla	L41HV	365	610	a	T	54	8½x2¾x¼	T
♦98	50AS	2½-3½	1295	144	205	14500	4590	7.00/20D	8.25/20	Wau	6-3⅝x4¼	263	5.6	175	77-2800	7-2⅝x10¼	N	WG	4	Eat	SF	H	5.83-8.11	Cla	L41HV	368	650	a	T	64	8½x2¾x¼	T
♦99	49A	3-4	1695	144	220	16000	5640	7.00/20D	9.75/20	Wau	6-3¾x4¼	282	5.2	190	83-2800	7-2⅝x10¼	N	Fu	5	Cla	SF	H	7.16-6.4	Cla	L41HV	408	742	a	T	64	10x2⅜x¼	T
♦100	58X	3½-4½	2490	160	235	21000	6690	7.50/20D	10.50/20	Wau	6-4¼x4¾	404	5.7	265	88-2500	7-2⅝x12½	Y	Fu	5	Cla	SF	R	7.16-6.4	Cla	L41HV	478	790	E	T	73 11/16	9 7/16x2¾x7/32	T
101	18XS	3½-4½	2890	160	235	21000	7190	7.50/20D	10.50/20	Wau	6-4¼x4¾	404	5.7	265	88-2500	7-2⅝x12½	Y	Fu	5	Cla	WF	R	7.25-8.5	Cla	B4IMV	550	898	E	T	73 11/16	9 7/16x2¾x7/32	T
102	38-8	3½-5	4090	170	241	25000	8070	9.00/20D	10.50/22	Lyc	6-4x5½	420	5.2	300	120-2800	5-2¾x12	Y	BL	5	Tim	WF	R	7.25-8.5	Eat	B4IMV	550	898	E	T	73⅝	9 7/16x2¾x7/32	T
103	38-6	3½-5	4090	170	241	25000	8070	9.00/20D	10.50/22	Wau	6-4⅝x5⅛	517	4.5	330	110-2000	7-3x13⅞	Y	BL	5	Tim	WF	R	7.25-8.5	Eat	B4IMV	550	898	E	T	75⅝	9 7/16x2¾x7/32	T
104	31X	5-8	5490	165	235	30000	9490	9.75/20D	10.50/24	Wau	6-4⅝x5⅛	517	4.5	330	110-2000	7-3x13⅞	Y	BL	12	Tim	WF	R	8.2-9.0	Eat	Ws41A	614	1004	E	TX	73 7/16	9⅝x2¾x7/32	T
♦105	Studebaker.....J5	½	570	115	...		2340	6.00/16	6.50/16	Own T	6-3¼x4⅜	217	6.0	160	86-3600	4-2½x5 11/16	N	WG T86	3	Spl 41-1	Hyp	H	4.55-4.82	Own J5	L41H	138	241	C	2I	29 11/16	5½x2x⅛	T
♦106	J15	1½-2	655	138	162		3402	6.00/20†D	7.00/20††	Own 1T	6-3¼x4⅜	217	6.0	160	85-3200	4-2½x5 11/16	N	WG T9	4	Cla R750	SF	H	5.1-6.8	Cla F266	L41H	271	402	F	T	60	7x2¾x7/32	T
♦107	(c.o.e.) J15M	1½-2	655	101	162		3262	6.00/20†D	7.00/20††	Own 1T	6-3¼x4⅜	217	6.0	160	85-3200	4-2½x5 11/16	N	WG T9	4	Cla R750	SF	H	5.1-6.8	Cla F280	L41H	271	402	F	T	59⅝	7x2¾x7/32	T
♦108	J20	2-3	955	138	180		4210	6.50/20D	8.25/20*	Her JXB	6-3⅝x4¼	263	5.8	179	79-2800	7-2½x10 11/16	Y	WG T9	4	Tim 54410	SF	H	4.8-6.8	Tim 31020N	L41H	320	477	N	T	60	8½x3x7/32x¼	T
♦109	(c.o.e.) J20M	2-3	955	101	162		4117	6.50/20D	8.25/20	Her. JXB	6-3⅝x4¼	263	5.8	179	79-2800	7-2½x10 11/16	Y	WG T9	4	Tim 54410	SF	H	4.8-6.8	Tim 31100N	L41H	320	477	N	T	59⅝	8½x3x7/32	T
♦110	J25	2½-3½	1495	138	180		5077	7.00/20D	9.00/20	Her. JXD	6-4x4¼	320	5.6	214	88-2600	7-2½x10 11/16	Y	Cla 200V	5	Tim 56410	SF	H	6.1-7.4	Tim 31020N	L41H	418	645	N	T	60	8½x3x7/32x¼	T
♦111	(c.o.e.) J25M	2½-3½	1495	101	162		4987	7.00/20D	9.00/20	Her. JXD	6-4x4¼	320	5.6	214	88-2600	7-2½x10 11/16	Y	Cla 200V	5	Tim 56410	SF	H	6.1-7.4	Tim 31100N	L41H	418	645	N	T	59⅝	8½x3x7/32	T
♦112	J30	3-4	1885	142	184		5886	7.00/20†D	9.75/20	Her. WXC3	6-4¼x4½	383	5.5	263	101-2400	7-2⅝x13¼	Y	Cla 270V	5	Tim 58200	SF	H	5.8-7.8	Tim 32500	L41H	421	659	N	T	60	8 9/16x3¼x7/32	T
♦113	(c.o.e.) J30M	3-4	1885	101	166		5800	7.00/20†D	9.75/20	Her. WXC3	6-4¼x4½	383	5.5	263	101-2400	7-2⅝x13¼	Y	Cla 270V	5	Tim 58200	SF	H	5.8-7.8	Tim 32500	L41H	421	659	N	T	59⅝	8 9/16x3¼x7/32	T
♦114	Terraplane.....70	¾	***	117	...		2150	6.00/16D	6.00/16	Own	6-3x5	212	6.2	160	96-3900	3-2⅜x5¾	N	Own	3	Own	S½	H	**4.55	Own	B4H	154	....	P	2I	32¼	7¼x1x¾	C
115	78	¾	***	124	...		...	6.00/16D	6.00/16	Own	6-3x5	212	6.2	160	96-3900	3-2⅜x5¾	N	Own	3	Own	S½	H	**5.12	Own	B4H	154	....	P	2I	39¼	7¼x1x¾	C
116	Ward La Fr....125	3-4	3450	187	...	21000	7200	9.00/20D	9.75/20	Wau MZ	6-4¼x4¾	404	5.7	254	85-2500	7-2⅝x12½	Y	Fu 5A380	5	Tim 58205H	SF	R	5.25-7.8	Tim 33000H	L41HV	384	694	a	TD	108½	12x3¼	B
117	(D)127D	3-4	***	187	...	21000	7500	9.00/20D	9.75/20	Bud 415	6-4x5½	415	...	308	105-2200	7-3x11½	Y	Fu 5A380	5	Tim 58205H	SF	R	5.25-7.8	Tim 33000H	L41HV	384	694	a	TD	108½	12x3¼	T
118	131	5	4195	204	...	26000	7300	9.75/20D	10.50/20	Wau MZ	6-4¼x4¾	404	5.7	254	85-2500	7-2⅝x12½	Y	Fu 5A380	5	Wis 1337BH	2F	R	5.6-9.4	Shu 15682B	L41HV	488	792	a	CD	125	12x3¼	T
119	136	5-6	4625	204	...	26000	8700	9.75/20D	10.50/20	Wau SRL	6-4⅜x5⅛	462	4.6	300	102-2200	7-3x13½	Y	Fu 5A620	5	Wis 1337BH	2F	R	5.6-9.4	Shu 15682B	L41HV	488	792	a	CD	125	12x3¼	T
120	137D	5-6	***	204	...	26000	9000	9.75/20D	10.50/20	Bud 468	6-4⅜x5¼	468	...	346	118-2200	7-3x11½	Y	Fu 5A620	5	Wis 1337BH	2F	R	5.6-9.4	Shu 15682B	L41HV	488	792	a	CD	125	12x3¼	T
121	138D	5-6	***	204	...	26000	9000	9.75/20D	10.50/20	Her DRXB	6-4⅜x5¼	474	...	350	120-2000	7-3½x13¾	Y	Fu 5A620	5	Wis 1337BH	2F	R	5.6-9.4	Shu 15682B	L41HV	488	792	a	CD	125	12x3¼	T
122	156	7½	5800	218	...	32000	10000	10.50/20D	10.50/24	Wau 6-125	6-4⅜x5⅛	462	5.0	324	125-2600	7-3x13⅞	Y	Fu 5A620	5	Wis 1747KW	2F	R	6.0-9.2	Shu 15693WB	Ws41A	547	867	a	CD	139	12x3¼	T
123	335RWS	7½	5450	205	224	26000	9360	9.75/24D	10.50/20	Wau SRL	6-4⅜x5⅛	462	4.6	300	102-2400	7-3x13⅞	Y	Fu 5A620	4	Tim 65720W	WF	R	5.2-9.25	Tim35100TW	Ws41A	617	867	a	TD	115¾	14x3¼x¼	B
124	55RH	7½	5350	218	...	32000	10500	10.50/20D	10.50/24	Wau SRK	6-4⅝x5⅛	517	4.6	330	110-2300	7-3x13⅞	Y	Fu MRU	5	Tim 76733	2F	R	6.0-9.2	Tim 26452	L41HV	560	867	a	CD	139	12x3¼	T
125	156D	7½	***	218	...	32000	10500	10.50/20D	10.50/24	Her DRXB	6-4⅜x5¼	474	...	350	120-2000	7-3½x13¾	Y	Fu 5A602	5	Wis 1747KW	2F	R	6.0-9.2	Shu 15693WB	Ws41A	547	867	a	CD	139	12x3¼	T
126	50D	7½-10	5975	159	173	36000	11000	40x8D	40x8	Wau SRL	6-4⅜x5⅛	462	4.6	300	102-2400	7-3x13⅞	Y	BL 7241	4	Tim 68702D	WF	R	8.75-11.6	Tim 16302	T2IMV	470	517	a	TD	88	14x3¼x¼	T
127	176D	15	7685	218	...	32000	11000	10.50/20D	10.50/24	Cu. Die. HB	6-4⅞x6	672	17	420	125-1800	7-3¾x16½	Y	Cla 710	5	Wis 1747KW	2F	R	6.0-9.2	Shu 15693W	Ws41A	547	867	a	CD	139	12x3¼	....
128	201D	20	7900	218	...	......	12000	10.50/20D	11.25/24	Cu. Die. HB	6-4⅞x6	672	17	420	125-1800	7-3¾x16½	Y	Cla 710	5	Wis 1910KW	2F	R	6.0-9.2	Shu 15693WB	Ws41A	547	867	a	CD	139	12x3¼	....
129	(c.o.e.) H	¾	4250	...	...	21000	.....	9.00/20D	....	Wau MZ	6-4¼x4¾	404	5.7	254	85-2500	7-2⅝x12½	Y	Fu 5A380	5	Tim 58205H	SF	R	5.25-7.8	Shu 672B1	L41HV	497	786	a	CD	.....	12x3¼	T
130	(c.o.e.) J	5	4860	...	...	26000	.....	9.75/20D	....	Wau MZ	6-4¼x4¾	404	5.7	254	85-2500	7-2⅝x12½	Y	Fu 5A380	5	Wis 1337BH	2F	R	5.6-9.4	Shu 672B1	L41HV	376	817	a	CD	.....	12x3¼	T
131	(c.o.e.) K	5-6	5575	...	...	28000	.....	9.75/20D	....	Wau SRL	6-4⅜x5⅛	462	4.6	300	102-3200	7-3x13½	Y	Fu 5A620	5	Wis 1337BH	2F	..	5.6-9.4	Shu 672B1	L41HV	376	817	a	CD	.....	12x3¼	T
132	(c.o.e.) L	7½	6535	...	...	32000	.....	10.50/20D	....	Wau SRK	6-4⅝x5⅛	517	4.6	330	110-2300	7-3x13⅞	Y	Fu 5A620	5	Wis 1747K W	2F	..	6.0-9.2	Shu 673B12	Ws41A	547	867	a	CD	.....	12x3¼	T
133	(c.o.e.) LD	15	8495	...	...	32000	.....	10.50/20D	....	Cu. Die. HB	6-4⅞x6	672	17	420	125-1800	7-3¾x16½	Y	Cla 710	5	Wis 1747K W	2F	..	6.0-9.2	Shu 673B12	Ws41A	547	867	a	CD	.....	12x3¼	T
134	(c.o.e.) MD	20	8725	...	...	......	.....	10.50/20D	....	Cu. Die. HB	6-4⅞x6	672	17	420	125-1800	7-3¾x16½	Y	Cla 710	5	Wis 1910W	2F	..	6.0-9.2	Shu 673B12	Ws41A	547	867	a	CD	.....	12x3¼	T
♦135	White.......700P	¾	***	136	196	.....	3350	6.50/20S	7.50/20	Own 250	6-3 7/16x4½	250	5.8	165	70-2600	7-2⅞x10.7	Y	Own 45B	4	Own 36C	SF	H	4.85-6.80	Own 32D	L41H	270	424	a	TX	60¼	7 11/16x3x7/32	T
136	700	1-2	985	136	196	.....	4148	6.50/20S	7.50/20	Own 250	6-3 7/16x4½	250	5.8	165	70-2600	7-2⅞x10.7	Y	Own 45B	4	Own 36C	SF	H	4.85-6.80	Own 32D	L41H	270	424	a	TX	60¼	7 11/16x3x7/32	T
♦137	700A	2-3	***	136	196	.....	4520	6.50/20D	7.50/20	Own 250	6-3 7/16x4½	250	5.8	165	70-2600	7-2⅞x10.7	Y	Own 45B	4	Own 36C	SF	H	4.85-6.80	Own 32D	L41H	270	424	a	TX	60¼	7 11/16x3x7/32	T
138	700K	......	1350	136	148	.....	4350	6.50/20D	7.50/20	Own 250	6-3 7/16x4½	250	5.8	165	70-2600	7-2⅞x10.7	Y	Own 45B	4	Own 40C	2F	H	5.28-7.06	Own 32D	L41HV	270	424	a	TX	60¼	7 11/16x3x7/32	T
139	703	1-2	1315	136	178	.....	4450	7.00/20S	7.50/20	Own 270	6-3 9/16x4½	270	5.5	195	83-2800	7-2⅞x10.7	Y	Own 28B	4	Own 25C	SF	H	5.10-6.86	Own 22D	L41HV	308	460	a	TX	60¼	7x2 11/16x7/32	T
♦140	704	1½-2	1425	136	214	.....	4740	7.00/20D	8.25/20	Own 270	6-3 9/16x4½	270	5.5	195	83-2800	7-2⅞x10.7	Y	Own 28B	4	Own 25C	SF	H	5.10-6.86	Own 22D	L41HV	308	460	a	TX	60¼	7x2 11/16x7/32	T
♦141	704K	......	1925	136	160	.....	5520	7.00/20D	9.00/20	Own 270	6-3 9/16x4½	270	5.5	195	83-2800	7-2⅞x10.7	Y	Own 41B	4	Own 20C	SF	H	5.11-7.17	Own 22D	L41HV	364	557	a	TX	60¼	7x2 11/16x7/32	T
142	704A	2-4	1500	136	214	.....	4855	7.50/20D	8.25/20	Own 270	-3 9/16x4½	270	5.5	195	83-2800	7-2⅞x10.7	Y	Own 28B	4	Own 25C	SF	H	5.10-6.86	Own 22D	L41HV	308	460	a	TX	60¼	7x2 11/16x7/32	T
♦143	705	1½-2½	1725	136	226	.....	4883	7.00/20D	9.00/20	Own 270	6-3 9/16x4½	270	5.5	195	83-2800	7-2⅞x10.7	Y	Own 28B	4	Own 37C	SF	H	5.10-6.83	Own 22D	L41HV	364	557	a	TX	60¼	7 3/16x3x¼	T
♦144	709	1½-3	1975	136	214	.....	5543	7.50/20D	9.00/20	Own 270	6-3 9/16x4½	270	5.5	195	83-2800	7-2⅞x10.7	Y	Own 28B	4	Own 20C	SF	H	5.11-7.17	Own 22D	L41HV	364	557	a	TX	60¼	7 3/16x3x¼	T
145	709A	3-5	2075	136	214	.....	5657	8.25/20D	9.00/20	Own 270	6-3 9/16x4½	270	5.5	195	83-2800	7-2⅞x10.7	Y	Own 28B	4	Own 20C	SF	H	5.11-7.17	Own 22D	L41HV	364	557	a	TX	60¼	7 3/16x3x¼	T
♦146	710	2-4½	2250	136	226	.....	5959	7.50/20D	9.00/20	Own 303	6-3 11/16x4½	303	5.5	215	92-2800	7-2⅞x10.7	Y	Own 41B	4	Own 20C	SF	H	5.11-7.17	Own 19D	L41HV	428	557	a	TX	60¼	7 3/16x3x¼	P
♦147	712	3-5	2650	130	226	.....	6500	8.25/20D	9.00/20	Own 318	6-3⅞x4½	318	5.5	234	94-2600	7-2⅞x10 11/16	Y	Own 41B	5	Own 20C	SF	H	5.11-7.17	Own 19D	L41HV	414	557	a	TX	60	8x3x¼	T
♦148	712A	4-5½	2775	154	226	.....	6600	9.75/20D	9.75/20	Own 318	6-3⅞x4½	318	5.5	234	94-2600	7-2⅞x10 11/16	Y	Own 41B	5	Own 20C	SF	H	5.11-7.17	Own 19D	L41HV	414	557	a	TX	84	8x3x¼	T
149	621K	3-4	4900	168	215	.....	9125	9.00/20D	9.75/22	Own 434	6-4 3/16x5¼	434	5.0	295	116-2400	7-2¾x13⅛	Y	Own 4B	4	Own 10C	SF	R	5.22-7.14	Own 6D	O4IHV	553	750	a	CI	97½	8x3x¼	T
♦150	620K	3-4	4675	168	215	.....	8555	9.00/20D	9.75/20	Own 434	6-4 3/16x5¼	434	4.9	295	116-2400	7-2¾x13⅛	Y	Own 4B	4	Own 26C	2F	R	5.71-7.95	Own 6D	O4IHV	483	646	a	CI	97½	8x3x¼	T
♦151	718	3-6	3030	130	226	.....	6830	9.00/20D	9.75/20	Own 318	6-3⅞x4½	318	5.5	234	94-2600	7-2⅞x10 11/16	Y	Own 41B	5	Own 26C	2F	R	7.32-8.73	Own 16D	L41HV	492	767	a	TX	60	8x3x¼	T
152	718A	4½-7	3140	154	226	.....	7300	9.75/20D	9.75/20	Own 318	6-3⅞x4½	318	5.5	234	94-2600	7-2⅞x10 11/16	Y	Own 41B	5	Own 26C	2F	R	7.32-8.95	Own 16D	L41HV	492	767	a	TX	84	8x3x¼	T
153	630	3-4½	5000	168	215	.....	8950	9.00/20D	9.75/20	Own 434	6-4 3/16x5¼	434	5.0	295	116-2400	7-2¾x13⅛	Y	Own 4B	4	Own 10C	SF	R	5.22-7.14	Own 6D	O4IHV	553	832	a	CI	85½	8x3x¼	T
154	630K	3-4½	5200	168	214	.....	9205	9.00/20D	10.50/20	Own 434	6-4 3/16x5¼	434	5.0	295	116-2400	7-2¾x13⅛	Y	Own 4B	4	Own 10C	SF	R	5.22-7.14	Own 9D	O4IHV	591	832	a	CI	97½	8x3x¼	T
155	640	3-4½	6100	180	214	.....	10185	9.00/20D	9.75/20	Own 580	6-4⅝x5¾	580	4.6	385	130-2300	7-3x15 11/16	Y	Own 10B	5	Own 10C	SF	R	5.22-6.29	Own 6D	O4IA	553	832	a	CI	92½	8½x3 3/16x3/16	T
156	640K	3-4½	6300	180	214	.....	10365	9.00/20D	10.50/20	Own 580	6-4⅝x5¾	580	4.6	385	130-2300	7-3x15 11/16	Y	Own 10B	5	Own 10C	SF	R	5.22-6.29	Own 9D	O4IA	591	832	a	CI	107	8½x3 3/16x3/16	T
♦157	(c.o.e.) 730	3½-7	6000	144	180	.....	10940	9.75/20D	9.75/24	Own 505	12-3 11/16x3 15/16	505	6.2	343	143-2800	7-2⅞x13¾	Y	Own 26B	4	Own 24C	SF	R	5.22-7.14	Own 20D	O4IA	632	928	a	TD	138	8x3½x¼	C
158	720	3½-7	4275	134	212	.....	8200	9.00/20D	10.50/22	Own 396	6-4x5¼	396	5.0	270	115-2600	7-2¾x13⅛	Y	Own 36B	5	Own 29C	2F	R	7.23-8.73	Own 24D	L41HV	560	875	a	TD	60	8⅛x3 3/16x3/16	TF
159	720T	3½-7	4275	134	158	.....	8100	9.00/20D	10.50/22	Own 396	6-4x5¼	396	5.0	270	115-2600	7-2¾x13⅛	Y	Own 36B	5	Own 29C	2F	R	7.23-8.73	Own 24D	L41HV	560	875	a	TD	60	8x3x¼	T
160	631	3½-6	5750	168	215	.....	9425	9.75/20D	10.50/20	Own 434	6-4 3/16x5¼	434	5.0	295	116-2400	7-2¾x13⅛	Y	Own 4B	4	Own 2C	2F	R	5.76-10.0	Own 9D	O4IA	633	996	a	CI	84⅞	8x3x¼	T
161	631K	3½-6	5950	168	215	.....	9745	9.75/20D	10.50/24	Own 434	6-4 3/16x5¼	434	5.0	295	116-2400	7-2¾x13⅛	Y	Own 4B	4	Own 2C	2F	R	5.76-10.0	Own 9D	O4IA	633	996	a	CI	100	8x3x¼	T
♦162	631X	7½	6100	215	215	.....	10000	10.50/20D	10.50/24	Own 434	6-4 3/16x5¼	434	5.0	295	116-2400	7-2¾x13⅛	Y	Own 4B	4	Own 2C	2F	R	5.76-10.0	Own 9D	O4IA	633	996	a	2I	131½	8½x3 3/16x3/16	C
♦163	641	3½-6	6450	157	214	.....	10460	9.75/20D	10.50/20	Own 580	6-4⅝x5¾	580	4.6	385	130-2300	7-3x15 11/16	Y	Own 10B	5	Own 2C	2F	R	5.76-10.0	Own 9D	O4IA	633	996	a	CI	91¾	8½x3 3/16x3/16	T
164	(6)...641K	3½-6	6650	157	214	.....	10800	9.75/20D	10.50/24	Own 580	6-4⅝x5¾	580	4.6	385	130-2300	7-3x15 11/16	Y	Own 10B	5	Own 2C	2F	R	5.76-10.0	Own 9D	O4IA	633	996	a	CI	107	8½x3 3/16x3/16	T
165	(c.o.e.) 731	4-8½	6800	144	180	.....	11360	10.50/20D	11.25/20	Own 505	12-3 11/16x3 15/16	505	6.2	343	143-2800	7-2⅞x13¾	Y	Own 24BA	5	Own 21C	2F	R	6.67-9.50	Own 20D	O4IA	632	1032	a	TD	138	8x3½x¼	C
166	(c.o.e.) 731H	8-10	***	160	...	.....	10000	11.25/20D	11.25/20	Own 505	12-3 11/16x3 15/16	505	5.9	343	143-2800	7-2⅞x13¾	Y	Own 26B	4	Own 21C	2F	R	6.67-9.51	Own 20D	O4IHV	632	1050	a	TD	.....	8¾x3⅜x⅜	T
♦167	722	4-8½	5275	134	212	.....	9300	9.75/20D	11.25/22	Own 460	6-4 3/16x5¼	460	5.0	320	123-2400	7-2¾x13⅛	Y	Own 36B	5	Own 21C	2F	R	6.67-9.50	Own 6D	O4IA	632	1050	a	TD	60	8¼x3⅜x⅜	TF
♦168	642	4-7½	6750	157	214	.....	11335	9.75/24D	10.50/24	Own 580	6-4⅝x5¾	580	4.6	385	130-2300	7-3x15 11/16	Y	Own 10B	5	Own 13C	2F	R	6.72-11.6	Own 9D	O4IA	623	1044	a	CI	91¾	8½x3 3/16x3/16	C
169	643	5-9	6950	157	214	.....	11665	10.50/24D	11.25/24	Own 580	6-4⅝x5¾	580	4.6	385	130-2300	7-3x15 11/16	Y	Own 10B	5	Own 13C	2F	R	6.72-11.6	Own 9D	O4IA	623	1044	a	CI	91¾	8½x3 3/16x3/16	C
170	691	7-9	7250	129	129	.....	12200	10.50/24D	11.25/24	Own 580	6-4⅝x5¾	580	4.6	385	130-2300	7-3x15 11/16	Y	Own 10BB	5	Own 13CB	2F	R	6.72-11.6	Own 13D	O4IA	623	1044	a	TD	65	8¾x3⅜x⅜	C
171	632X	10	6600	215	Op	.....	11000	10.50/24D	9.75/20	Own 434	6-4 3/16x5¼	434	5.0	295	116-2400	7-2¾x13⅛	Y	Own 4B	4	Own 13C	2F	R	6.72-11.6	Own 9D	O4IA	623	1044	a	CI	100	8¾x3 3/16x⅜	C
172	720A	5-7½	4450	134	212	.....	8600	9.75/20D	10.50/22	Own 396	6-4x5¼	396	5.0	270	115-2600	7-2¾x13⅛	Y	Own 36B	5	Own 29C	2F	R	7.22-8.73	Own 24D	L41HV	560	875	A	TD	60	8½x3 3/16x3/16	TF

† Rear 32 x 6. †† Rear 7.50/20. * Rear 8.25/20. ♦ Denotes New Models or Change in Specifications.

For abbreviations see page 305

Line Number	MAKE AND MODEL	GENERAL (See Keynote)					TIRE SIZES		ENGINE DETAILS								Governor Standard	TRANSMISSION	REAR AXLE				FRONT AXLE	BRAKES						FRAME	
							D-dual rear S-single rear								Main Bearings									SERVICE							
		Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight with Max. Tires	Chassis Wt. (Stripped)	Standard Front and Rear	Maximum Tire Size Furnished	Make and Model	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Number, Diameter and Length			Make and Model	Forward Spd's	Make and Model	Gear and Type	Drive & Torque	Gear Ratio Range in High	Make and Model	Make Location Type Operat'n	Lining Area	Drum Area	Drum Material	Hand Location Type	C-A Dimension (Std. W. B.)	Side Rail Dimensions	Type
♦ 1	White(Con't.)722A	8-10	5675	134	212	.....	9800	10.50/20D	11.25/24	Own 460	6-4¼x5¼	460	5.0	320	123-2400	7-2¾x13½	Y	Own 36B	5	Own 21C	2F	R	6.67-9.50	Own 9D	O4IA	632	1032	A	TD	60	8¼x3¼x⅝	T
♦♦ 2	.....(c.o.e.) 805	1½-2	1750	97	193	.....	4895	7.00/20D	8.25/20	Own 270	6-3⅞x4½	270	5.5	195	83-2800	7-2⅛x10.7	Y	Own 44B	4	Own 25C	SF	H	5.10-6.83	Own 29D	L4IHV	368	557	a	TX	60	7x2⅜x⅞	CCCCCCCCPP
3	.....(c.o.e.) 809	1½-3	2275	97	193	.....	5643	7.50/20D	9.00/20	Own 270	6-3⅞x4½	270	5.5	195	83-2800	7-2⅛x10.7	Y	Own 44B	4	Own 20C	SF	H	5.11-7.17	Own 23D	L4IHV	368	557	a	TX	60	7x3⅛x¾	
4	.....(c.o.e.) 810	2-4½	2550	97	193	.....	6010	7.50/20D	9.00/20	Own 303	6-3⅜x4½	303	5.5	215	92-2800	7-2⅛x10.7	Y	Own 41B	5	Own 20C	SF	H	5.11-7.17	Own 30D	L4IHV	428	557	a	TX	60	8x3x¾	
5	.....(c.o.e.) 812	3-5	2950	97	193	.....	6600	8.25/20D	9.75/20	Own 318	6-3⅞x4½	318	5.5	234	94-2600	7-2⅛x10.7	Y	Own 41B	5	Own 26C	2F	R	7.23-8.95	Own 28D	L4IHV	491	767	a	TX	60	8x3x¾	
♦ 6	.....(c.o.e.) 818	3-6	3330	97	193	.....	6930	9.00/20D	9.75/20	Own 318	6-3⅞x4½	318	5.5	234	94-2600	7-2⅛x10.7	Y	Own 41B	5	Own 26C	2F	R	7.23-8.95	Own 28D	L4IHV	491	767	a	TX	60	8x3x¾	
7	.....805A	2-4	1830	97	175	.....	4970	7.50/20D	8.25/20	Own 270	6-3⅜x4½	270	5.5	195	83-2800	7-2⅛x10.7	Y	Own 44B	4	Own 20C	SF	H	5.11-7.17	Own 23D	L4IHV	368	557	a	TX	60	7x2⅜x⅞	CCCCCPCPCPP
8	.....809A	3-5	2385	97	193	.....	5720	8.25/20D	9.00/20	Own 270	6-3⅜x4½	270	5.5	195	83-2800	7-2⅛x10.7	Y	Own 44B	4	Own 20C	SF	H	5.11-7.17	Own 23D	L4IHV	368	557	a	TX	60	7x3⅛x¾	
9	.....812A	4-5½	3075	97	193	.....	6700	9.00/20D	9.75/20	Own 318	6-3⅞x4½	318	5.5	234	94-2600	7-2⅛x10.7	Y	Own 41B	5	Own 20C	SF	H	5.11-7.17	Own 30D	L4IHV	428	557	a	TX	60	8x3x¾	
♦ 10	.....818A	4½-7	3475	97	193	.....	7050	9.75/20D	9.75/20	Own 318	6-3⅞x4½	318	5.5	234	94-2600	7-2⅛x10.7	Y	Own 41B	5	Own 26C	2F	R	7.23-8.95	Own 28D	L4IHV	491	767	a	TX	60	8x3x¾	
♦ 11	Willys 77 Cab Pick-Up	750 lbs.	395	100	100	2130	1584	5.25/17	5.25/17	Own 77	4-3½x4½	134	5.7	100	48-3200	3-2⅛x5⅛	N	Own 77	3	Own 77	S½	H	** 4.3	Own 77	B4IM	134	153	P	4I	20½	3¾x1¼x⅛	TX
♦ 12	(9)77 Panel Deliv'y	750 lbs.	415	100	100	2000	1584	5.25/17	5.25/17	Own 77	4-3½x4½	134	5.7	100	48-3200	3-2⅛x5⅛	N	Own 77	3	Own 77	S½	H	** 4.3	Own 77	B4IM	134	153	P	4I	20½	3¾x1¼x⅛	TX
	Four-Wheel-Drive																															
13	A'car (7)(d)4x4 DF	.....	5000	163	163	20000	8415	9.00/20D	9.00/20	Own 404	6-4¼x4¾	404	5.5	295	97-2200	7-3x14⅜	Y	Own DF4	8	Tim 5002	2F	H	**7.35	Tim F501	T4IMV	417	659	c	2I	84½	9x3x⅛	T
14	.....(d) 4x4 N	.....	6000	167	167	24000	9900	9.75/20D	9.75/20	Own 404	6-4¼x4¾	404	5.5	295	97-2200	7-3x14⅜	Y	Own DF4	8	Tim 72000	2F	H	**7.27	Tim F213	T4IMV	568	866	c	2I	88½	9x3x⅛	T
15	.....(d) 4x4 NF	.....	6750	168	168	26000	10915	9.75/20D	9.75/20	Own 453	6-4½x4¾	453	5.5	333	108-2200	7-3x14⅜	Y	Own TF4	8	Tim 1337	2F	H	**7.52	Tim F313	T4IMV	639	975	c	2I	89½	10½x3x⅛	T
16	.....(d) 4x4 S	.....	7250	168	168	30000	11145	10.50/20D	10.50/20	Own 501	6-4½x5¼	501	5.5	375	123-2200	7-3¼x14⅜	Y	Own TF4	8	Tim 1337	2F	H	**7.52	Tim F313	T4IMV	639	975	c	2I	89½	10½x3x⅛	T
17	Coleman.....E52	2½	3800	120	144	12800	7200	9.00/24S	9.00/24	Bud K393	6-4¼x4¾	393	4.9	260	103-2600	7-3x11½	Y	Fu RU 16	4	Wis CR15	2F	H	4.66-8.05	Wis CF15	W2/4IM	440	476	p	TD	78	10x2½x⅞	B
18	.....E53	3½	5300	130	180	18900	8000	9.75/24S	9.75/24	Bud K428	6-4⅜x4¾	428	4.7	280	107-2600	7-3x11½	Y	Fu MRU16	4	Wis CR26	2F	H	6.6-9.6	Wis CF25	W2/4IM	452	476	p	TD	89	12x2½x1⅛	B
19	.....E54	4-5	5600	130	180	20400	8800	10.50/24S	10.50/24	Bud L468	6-4½x5¼	468	4.8	295	108-2200	7-3x11½	Y	Fu MRU16	4	Wis CR30	2F	H	6.6-9.6	Wis CF30	W2/4IM	452	476	p	TD	89	12x2½x1⅛	B
20	.....E55	5	6150	130	180	23000	9600	11.25/24S	11.25/24	Bud L525	6-4½x5½	525	4.9	336	114-2200	7-3x11½	Y	Fu MHU16	4	Wis CR122	2F	H	7.69-9.54	Wis CF122	W2/4IM	502	530	G	TD	105	12x2⅝x1¼	B
21	.....E55S	5-6	7200	144	180	24500	10600	11.25/24S	11.25/24	Bud L525	6-4½x5½	525	4.9	336	114-2200	7-3x11½	Y	Fu MHU	4	Wis CR122	2F	H	7.69-9.54	Wis CF122	W2/4IM	502	530	G	TD	105	12x2⅝x1¼	B
22	.....E56	6-7½	7800	144	180	29800	11600	10.50/24D	10.50/24	Bud GF6	6-4¾x6	638	4.3	410	126-1850	4-3x10⅛	Y	BL 714	4	Wis CR122	2F	H	7.69-9.54	Wis CF122	O2/4IA	502	530	G	TD	105	16x3x1¼	B
23	.....E57	7½-10	9700	144	180	32000	12400	11.25/24D	11.25/24	Ste LT6	6-5¼x6	779	4.3	475	170-1800	7-3x13½	Y	BL 714	4	Wis CR122	2F	H	7.69-9.54	Wis CF122	O2/4IA	502	530	G	TD	105	16x3x1¼	B
24	Corbitt.....F12	1½-2	2375	143	180	.....	4420	6.50/20D	7.50/20	Wau 6BL	6-3½x3¼	245	5.4	162	72-3000	7-2⅝x10¼	N	WG T9	4	Tim 53615H	SF	H	5.14-6.6	Wis F30B	L4IH	247	329	a	TX	Opt	6½x2¾x⅛	T
25	.....F14	2-2½	3200	145	180	.....	5060	7.50/20D	8.25/20	Wau 6BK	6-3¾x4¼	282	5.4	190	80-2800	7-2⅝x10¼	N	Cla B116	4	Tim 54400H	SF	H	5.8-6.8	Wis F544B	L4IH	257	438	a	TX	Opt	7x3x¼	T
26	.....F15	2½-4	4500	155	185	.....	6900	8.25/20D	9.00/20	Wau 6MK	6-4⅛x4¾	381	4.8	240	85-2400	7-2⅝x12½	N	Fu MGU	4	Wis 5002L	2F	H	6.66-8.16	Wis F501H	L4IH	335	782	a	TD	Opt	9¾x2½x⅛	T
27	.....F18	2½-4	5500	160	185	.....	9000	9.00/20D	9.75/22	Wau 6SRL	6-4⅜x5½	462	4.5	300	100-2200	7-3x13⅛	N	Fu 5A53	5	Wis 72000L	2F	H	5.61-7.27	Wis F213	L4IHV	534	870	a	TD	Opt	9¾x2½x⅛	T
28	.....F23	3-5	10000	170	210	.....	10100	9.75/20D	10.50/22	Wau 6SRK	6-4⅝x5½	517	4.6	330	110-2200	7-3x13½	N	Fu 5A53	5	Wis 1337H	2F	H	6.85-9.41	Wis F313H	L4IHV	625	974	a	TD	Opt	9¾x2½x⅛	T
29	.....F27	4-7	10000	170	210	.....	10100	9.75/20D	10.50/22	Wau 6SRK	6-4⅝x5½	517	4.6	330	110-2200	7-3x13½	Y	BL 7341	4	Wis 1737 KW	2F	H	7.14-9.35	Wis F417KW	Ws4IA	654	1080	a	TD	Opt	9¾x3x¾	T
30	.....F35	6-10	10000	185	210	.....	11500	10.50/20D	11.25/22	Wau 6RB	6-5x5¾	677	4.8	440	124-1800	7-3½x17⅜	..	BL 7341	4	Wis 1737 KW	2F	H	7.14-9.35	Wis F417KW	Ws4IA	654	1080	a	TD	Opt	9¾x3x¾	T
31	F.W. D.....HS	1½	2440	132	156	13000	4700	6.50/20D	8.25/20	Wau BK	6-3¾x4¼	282	5.3	188	85-3200	7-2⅝x10¼	Y	Fu 5B33	5	Tim 53539A1	S	H	5.58-8.0	Wis F33-8	L4IHV	286	452	G	T4	67¾	7¼x2¾x⅛	CCCCCCCCCCC
32	.....H6	2-2½	3560	138	160	14800	5800	9.00/20S	11.25/20S	Wau MS	6-3¾x4¾	315	4.5	200	72-2500	7-2⅝x12½	Y	BL 2352	5	Own H	BF	H	6.00-8.82	Own H	O4IA	220	252	G	2I	85	7x3x⅛	
33	.....HH6	2½-3	4285	138	170	18700	6900	9.75/20S	10.50/20	Wau MK	6-4⅛x4¾	381	6.1	256	85-2500	7-2⅝x12½	Y	BL 3352	5	Own HU	BF	H	6.72-8.84	Own HU	L4IHV	504	867	G	T4	92	7x3x⅛	
34	.....B3		4200	124	156	16700	6460	36x6S	40x8S	Wau A	4-4⅜x5½	391	4.0	220	56-1000	3-2x11	Y	CO & DAF	3	Own B	BF	H	7.35-8.9	Own B	OT4XM	92	110	G	2I	93	5⅛x2½x⅛	
35	.....CU6	3½-4	5145	147	179	21300	8400	10.50/20S	11.25/20	Wau SRS	6-4⅛x5½	411	4.6	260	91-2300	7-3x13⅜	Y	Own U	5	Own U	BF	H	6.72-8.84	Own U	L4IHV	504	867	G	T4	92	7x3x⅛	
36	.....CU6A	3½-4	4845	147	179	21100	8100	10.50/20S	11.25/20	Wau SRS	6-4⅛x5½	411	4.6	260	91-2300	7-3x13⅜	Y	Fu 5A62	5	Own U	BF	H	6.72-8.84	Own U	L4IHV	504	867	G	T4	92	7x3x⅛	
37	.....SSU	4-5	5295	147	179	23600	8600	11.25/20S	11.25/20	Wau SRL	6-4⅜x5½	462	4.5	302	102-2400	7-3x13⅜	Y	Own U	5	Own U	BF	H	6.72-8.84	Own U	L4IHV	504	867	G	T4	92	7x3x⅛	
38	.....SSUA	4-5	4995	147	179	23300	8300	11.25/20S	11.25/20	Wau SRL	6-4⅜x5½	462	4.5	302	102-2400	7-3x13⅜	Y	Fu 5A62	5	Own U	BF	H	6.72-8.84	Own U	L4IHV	504	867	G	T4	92	7x3x⅛	
39	.....MJ5	5-6	6435	150	180	27700	11200	10.50/20D	12.00/20	Wau SRK	6-4⅝x5½	517	4.5	330	110-2300	7-3x13⅜	Y	BL 7341	8	Wis 1337	2F	H	5.63-7.35	Wis 1337	B4IMV	666	976	G	T4	95	8x3x⅛	
40	.....LBU	5-6	4800	171	Op	23600	8900	9.00/20D	11.25/20	Wau SRS	6-4½x5½	411	4.6	260	91-2300	7-3x13⅜	Y	BL 55	4	Own U	BF	H	6.72-8.84	Own U	O4IM	720	867	G	4D	Opt	7x3x⅛	
41	.....MF6	5-6	5935	147	179	25000	9100	10.50/20D	11.25/20	Wau SRK	6-4⅝x5½	517	4.5	330	110-2300	7-3x13⅜	Y	Own U	4	Own MF	BF	H	6.72-8.84	Own MF	L4IHV	504	867	G	T4	92	8x3x⅛	
42	.....MJ6	6-7	6750	150	180	29000	11400	10.50/20D	12.00/20	Wau 125	6-4⅜x5½	462	5.0	325	125-2600	7-3x13⅜	Y	BL 7341	8	Wis 1337	2F	H	5.63-7.35	Wis 1337	B4IMV	666	976	G	T4	95	8x3x⅛	
43	.....MJ6A	6-7½	7600	150	180	31000	11650	12.75/20S	13.50/20	Wau 125	6-4⅜x5½	462	5.0	325	125-2600	7-3x13⅜	Y	BL 7341	8	Wis 1757	2F	H	6.39-8.33	Wis 1757	B4IMV	666	976	G	T4	95	10x3x⅛	
44	.....M7	7½-10	8575	150	180	37600	12300	40.00/10D	13.50/20	Wau RB	6-5x5¾	677	4.4	440	145-2000	4-3½x11⅜	Y	BL 7341	8	Wis 1757	2F	H	6.39-8.33	Wis 1757	B4IMV	666	976	G	T4	95	10x3x⅛	
45	.....M10	10-11	9600	150	180	40000	13400	13.50/20S	13.50/20	Her HXE	6-5¼x6	935	5.3	610	198-2000	7-3½x17	Y	BL 7440	8	Wis 1910	2F	H	7.16-9.35	Wis 1910	Ws4IA	639	976	G	T4	95	10x3x⅛	
46	.....T26	6-7	2825	144	144	26000	5100	8.25/20D	9.00/20	Wau BK	6-3¾x4¼	282	5.3	188	85-3200	7-2⅝x10¼	Y	Fu 5B33	5	Tim 53539A1	S	H	5.58-8.00	Wis F33-8	L4IHV	286	452	G	T4	67¾	7¼x2¾x⅛	CCCCCCCCCCC
47	.....T32	7½-10	4890	132	132	32000	9000	9.00/20D	9.75/20	Wau 110	6-4¼x4¾	358	5.0	254	110-2800	7-2⅝x12½	Y	BL 3353	5	Own HU	BF	H	7.3-9.88	Own HU	L4IHV	568	868	G	T4	70¾	10x3x⅛	
48	.....T40	10-15	5450	134	134	40000	10500	9.75/20D	10.00/20	Wau 125	6-4⅜x5½	462	5.0	325	125-2600	7-3x13⅜	Y	BL 5351	5	Own U	BF	H	7.3-11.2	Own U	L4IHV	568	868	G	T4	71	10x3x⅛	
49	.....T60	15-25	6935	134	134	60000	11000	9.75/20D	10.50/20	Wau RB	6-5x5¾	677	4.4	440	145-2000	4-3½x11⅜	Y	BL 7351	5	Own MF	BF	H	5.17-14.9	Own MF	O4A	568	868	G	T4	80	10x3x⅛	
50	.....X6	10-12	8165	190	Op	40000	13400	10.50/20D	10.50/20	Wau RB	6-5x5¾	677	4.4	440	145-2000	4-3½x11⅜	Y	BL 7341	8	Wis 131TW	2F	H	5.78-9.35	Wis 131F	Ws6IA	828	1302	G	T4	145	10x3x⅛	
51	.....MX6	10-15	12225	200	Op	52400	17200	13.50/20S	13.50/20	Wau MK	6-4⅛x4¾	381	6.1	256	85-2500	7-2⅝x12½	Y	Own	6	Own H	2F	H	6.56-7.9	Own H	O4TXM	160	170	CI	2I	85	7x3x⅛	
52	.....(*)LM	RM	3650	138	138	.....	6500	9.00/20S	9.00/20S	Wau MK	6-4⅛x4¾	381	6.1	256	85-2500	7-2⅝x12½	Y	Own	6	Own HH	2F	H	7.35-8.84	Own HH	L4IHV	504	867	G	T4	85	7x3x⅛	
53	.....(*)HM	RM	4135	138	138	.....	7100	9.75/20S	9.75/20S	Wau MK	6-4⅛x4¾	381	6.1	256	85-2500	7-2⅝x12½	Y	Own	6	Own HH	2F	H	7.35-8.84	Own HH	L4IHV	504	867	G	T4	85	7x3x⅛	
54	Hug.....43-4	3½-4	6185	150	160	22000	9000	10.50/20S	10.50/20	Bud K428	6-4⅝x4¼	428	4.8	280	107-2600	7-3x11½	Y	Fu 5A620	5	Wis 72000H	2F	H	5.63*8.59	Wis F213H	L4IHV	532	868	a	TD	70¾	8x3x⅛	
55	.....87K4	4-5	6685	150	160	24000	9700	10.50/20S	10.50/20	Bud K428	6-4⅝x4¾	428	4.8	280	107-2600	7-3x11½	Y	Fu 5A620	5	Wis 1337BH	2F	H	5.63*8.59	Wis F313H	L4IHV	731	976	a	TD	70¾	7x3¼x⅛	
56	.....87Q4	5-7	8350	160	170	28000	10300	11.25/20S	11.25/20	Bud L525	6-4½x5½	525	4.8	340	111-2200	7-3x11¾	Y	Fu 5A620	5	Wis 1737KW	2F	H	5.75*9.16	Wis F417W	W4IA	648	976	a	TD	86½	8x4x⅛	
57	.....(D) 100	25	14500	135	135	100000	21000	18.00/24D	18.00/24	Cat D13000	6-5¼x8	1246	15.	772	125-850	7-3½x18	Y	Spi 7440	4	Tim 79740W	2F	T	**-10.0	Wis F419CW	4IA	648	976	a	TD	135	9x4⅛x⅛	T
58	Indiana.....12X4	1½-2	***	131	Op	.....	4650	6.50/20D	7.50/20	Her JXC	6-3¾x4¼	282	5.4	176	73-2800	7-2½x10⅛	Y	BL 2341	4	Tim 53210	SF	H	5.14-5.66	Wis F30B	L4IHV	260	412	G	TD	46½	7⅛x2½x⅛	TTTTTTTTTT
59	.....14X4	2-2¾	***	140	Op	.....	5900	7.50/20D	8.25/20	Her JXC	6-3¾x4¼	282	5.4	176	73-2800	7-2½x10⅛	Y	BL 2341	4	Tim 54413	SF	H	5.14-6.6	Wis F54H	L4IHV	260	528	G	TD	55½	7½x2¾x⅛	
60	.....16X4	2½-3	***	156	Op	.....	7500	7.50/20D	8.25/20	Her WXC	6-4x4½	339	4.7	226	76-2400	7-2⅝x13¼	Y	BL 5341	4	Wis 5000L	SF	H	6.35-7.35	Wis F500	L4IHV	330	578	G	TD	72½	7½x3x⅛	
61	.....16X4A	2½-3	***	156	Op	.....	9000	9.00/20D	9.75/20	Her YXC	6-4¾x4¾	428	4.5	283	94-2200	7-3x14	Y	BL 5341	4	Wis 72000L	2F	H	7.06-8.00	Wis F213	L4IHV	492	867	G	TD	72	8½x3x⅛	
62	.....18X4	4½-5	***	160	Op	.....	8700	9.00/20D	9.75/20	Her YXC	6-4¾x4¾	428	4.5	283	94-2200	7-3x14	Y	BL 5341	4	Tim 58205H	SF	H	6.14-6.80	Wis F580H	L4IHV	345	785	G	TD	72	8x3x⅛	
63	.....18X4A	4½-5	***	160	Op	.....	8700	9.00/20D	9.75/20	Her YXC	6-4¾x4¾	428	4.5	283	94-2200	7-3x14	Y	BL 5341	4	Wis 1337H	2F	H	7.52-8.59	Wis F311H	L4IHV	582	975	G	TD	84	8¼x3¾x⅝	
64	.....20X4	5-6	***	172	Op	.....	10600	9.75/20D	9.75/20	Her RXB	6-4½x5¼	501	4.5	330	106-2000	7-3x12½	Y	BL 5341	4	Wis 417W	2F	H	7.14-9.15	Wis 1737W	Ws4IA	648	975	G	TD	84	10x3x⅛	
65	.....22X4	5½-6½	***	185	Op	.....	13000	10.50/20D	10.50/20	Her HXB	6-5x6	707	4.5	455	148-2000	7-3½x17	Y	BL 7341	4	Wis 417W	2F	H	7.14-9.15	Wis 1737W	Ws4IA	648	975	G	TD	84	10x3x⅛	
♦ 66	Mar.-Herr...LD1-4	1½	1375	112	.....	.....	2460	7.50/15D	8.25/16S	Ford V-8	8-3⅛x3¾	221	6.12	146	85-3800	3-2.4x5⅜	N	Ford	4	Ford	S¾	U	** 4.44	Own LD1	4IM	186	293	a	2/4I	36½	5½x2x.11	CCCCC
♦ 67	.....C5A-4	1½-3	1527	112	.....	.....	3900	6.00/20D	32x6	Ford V-8	8-3⅛x3¾	221	6.12	146	85-3800	3-2.4x5⅜	N	Ford	4	Ford	SF	U	** 6.6	Own IX41	4IH	314	421	a	2/4I	38	7x2¾x⅛	
♦ 68	.....C5B-4	1½-3	1527	122	.....	.....	3960	6.00/20D	32x6	Ford V-8	8-3⅛x3¾	221	6.12	146	85-3800	3-2.4x5⅜	N	Ford	4	Ford	SF	U	** 6.6	Own IX41	4IH	314	421	a	2/4I	58	7x2¾x⅛	
♦ 69	.....C6-4	1½-3	1477	132	.....	.....	4040	6.00/20D	32x6	Ford V8	8-3⅛x3¾	221	6.12	146	85-3800	3-2.4x5⅜	N	Ford	4	Ford	SF	U	** 6.6	Own IX41	4IH	314	421	a	2/4I	58	7x2¾x⅛	
♦ 70	.....C6-4	1½-3	1527	157	.....	.....	4154	6.00/20D	32x6	Ford V8	8-3⅛x3¾	221	6.12	146	85-3800	3-2.4x5⅜	N	Ford	4	Tim MH811	SF	H	** 6.6	TWH MH81	4IH	267	452	a	TX	60	7⅞x2½x⅛	
♦ 71	.....C10-4	2-2½	2490	143	Op	.....	4430	6.50/20D	7.50/20	Her JXB	6-3¾x4¼	263	5.4	182	78-2800	7-2½x10⅛	N	WG T9	4	Tim MH811	SF	H	** 6.6	TWH MH81	4IH	267	452	a	TX	60	7⅞x2½x⅛	
72	.....C20-4	2½-3	2820	143	Op	.....	4665	7.00/20D	7.50/20	Her JXC	6-3¾x4¼	282	5.3	196	84-2800	7-2½x10⅛	N	Fu 5A33	5	Tim MH811	SF	H	** 6.6	TWH MH81	4IH	281	527	a	TX	60	7⅞x2½x⅛	
73	.....C30-4	3-3½	3250	143	Op	.....	5155	7.50/20D	8.25/20D	Her JXD	6-4x4¼	320	5.3	224	95-2800	7-2½x10⅛	N	Fu 5A33	5	Tim MH822	SF	H	** 5.5	TWH MH82	4IH	342	578	a	FD	72	9⅛x3¼x⅛	
74	.....C40-4	3½-4	4550	158	Op	.....	7090	8.25/20D	9.00/20	Her WXC3	6-4¼x4½	383	5.0	260	106-2800	7-2⅝x13¼	Y	Fu 5A430	5	Tim MH853	SF	H	** 7.8	TWH MH85	4IH	384	785	a	FD	72	9⅛x3¼x⅛	
♦♦ 75	.....C50-4	4-5	4995	158	Op	.....	7895	9.00/20D	9.75/20	HerWXLC3	6-4¼x4¾	404	5.0	293	118-2800	7-2⅝x13¼	Y	Fu 5A430	5	Tim MH844	SF	H	** 7.8	WH MH84	4IH	384	785	a	FD	72	9⅛x3¼x⅛	
♦ 76	.....C55-4	4½-5½	5400	158	Op	.....	8100	9.00/20D	9.75/20	Her RXB	6-4½x5¼	501	4.5	330	110-2200	7-3x14	Y	Fu 5A62	5	Tim MH888	SF	H	** 7.52	WH MH88	4IH	738	975	a	FD	72	9⅛x3¼x⅛	
♦ 77	.....C55DR-4	5-6	6120	158	Op	.....	8500	9.00/20D	9.75/20	Her RXB	6-4½x5¼	501	4.5	330	110-2200	7-3x14	Y	Fu 5A62	5	Wis MH866	2F	H	** 7.27	WH MH86	4IH	461	785	a	FD	72	9⅛x3x⅛	CCCPP
78	Mar-Herr...C60-4	5-6	6500	161	Op	.....	8785	9.00/20D	9.75/20	Her RXB	6-4½x5¼	501	4.5	330	110-2200	7-3x14	Y	Fu 5A620	5	Wis MH899	2F	H	** 7.52	WH MH89	4IA	738	975	a	FD	72	10x3x⅜	
79	(Con't.)....C70-4	6-7	8895	161	Op	.....	9880	9.75/20D	9.75/22	Her RXC	6-4⅝x5¼	529	4.5	330	114-2200	7-3x14	Y	Fu 5A620	5	Wis MH900	2F	H	** 8.05	WH MH90	4IA	738	975	a	FD	102	8½x3x⅛	
80	.....C75-4	7-8	9250	161	Op	.....	10420	10.50/20D	10.50/22	Her RXC	6-4⅝x5¼	529	4.5	330	114-2200	7-3x14	Y	BL 7341	4	Wis MH900	2F	H	** 8.05	WH MH90	4IA	738	975	a	FD	102	10¼x3x⅜	

76	Mar-Herr	C60-4	5-6	6500	161	Op	....	8785	9.00/20D	9.75/20	Her RXB	6-4½x5¼	501	4.5	330	110-2200	7-3x14	Y	Fu 5A620	5	Wis MH866	2F	H	** 7.27	WH MH86	4IH	461	785	a	FD	72	9 11/16x3x¼	C
77	(Con't)	C70-4	6-7	8895	161	Op	....	9880	9.75/20D	9.75/22	Her RXB	6-4½x5¼	501	4.5	330	110-2200	7-3x14	Y	Fu 5A620	5	Wis MH899	2F	H	** 7.52	WH MH89	4IA	738	975	a	FD	72	10 3/16x3x 3/16	C
78		C80-4	7-9	9750	161	Op	....	10420	10.50/20D	10.50/22	Her RXC	6-4⅝x5¼	529	4.9	350	114-2200	7-3x14	Y	Fu 5A620	5	Wis MH900	2F	H	** 8.05	WH MH90	4IA	738	975	a	FD	72	10 3/16x3x 3/16	C
79		TH515-4	7-9	11910	198	Op	....	12600	10.50/20D	10.50/22	Her HXD	6-5½x6	855	4.5	555	180-2000	7-3½x17	Y	BL 7341	4	Wis MH900	2F	H	** 8.05	WH MH90	4IA	738	975	a	FD	102	8⅛x3x 3/16	P
80		TH520-4	8-10	12900	198	Op	....	13850	10.50/20D	10.50/24	Her HXE	6-5¾x6	935	4.5	610	198-2000	7-3½x17	Y	BL 7341	4	Wis MH911	2F	H	** 8.88	WH MH91	4IA	738	975	a	FD	102	10⅛x3x⅜	P
81	(D)	CD20-4	2½-3	4095	143	Op	....	5420	7.50/20D	7.50/20	Her DJXB	6-3⅝x4¼	260	...	178	79-2600	7-3x10½	Y	Fu 5A33	5	Tim MH811	SF	H	** 5.57	TWH MH81	4IH	267	452	a	TX	60	7⅞x2½x 5/32	C
82	(D)	CD30-4	3-3½	4425	143	Op	....	5615	7.50/20D	8.25/20	Her DJXC	6-3¾x4½	298	4.5	194	90-2600	7-3x10½	Y	Fu 5A33	5	Tim MH822	SF	H	** 5.56	TWH MH82	4IH	281	527	a	TX	60	7⅞x2½x 5/32	C
83	(D)	CD55DR-4	5-6	8412	158	Op	....	9800	9.00/20D	9.75/20	Her DRXB	6-4⅜x5¼	474	...	350	124-2200	7-3x13¼	Y	Fu 5A62	5	Wis MH888	2F	H	** 6.36	WH MH88	4IH	738	975	a	FD	72	9 11/16x3x¼	C
84	(D)	CD70-4	6-7	11350	161	Op	....	10775	9.75/20D	9.75/22	Her DRXB	6-4⅜x5¼	474	4.5	350	124-2200	7-3x13¼	Y	Fu 5A620	5	Wis MH899	2F	H	** 6.36	WH MH89	4IA	738	975	a	FD	72	10 3/16x3x 3/16	C
85	(D)	CD80-4	7-9	12150	161	Op	....	11315	10.50/20D	10.50/22	Her DRXB	6-4⅜x5¼	474	4.5	350	124-2200	7-3x13¼	Y	Fu 5A620	5	Wis MH900	2F	H	** 7.14	WH MH90	4IA	738	975	a	FD	72	10 3/16x3x 3/16	C
86	(D)	THD515-4	7-9	14435	198	Op	....	13300	10.50/20D	10.50/22	Her DHXB	6-5x6	707	4.5	530	176-1800	7-3½x17¼	Y	BL 7341	4	Wis MH900	2F	H	** 7.14	WH MH90	4IA	738	975	a	FD	102	8⅛x3x 3/16	P
87	(D)	THD520-4	8-10	15135	198	Op	....	14500	10.50/20D	10.50/24	Her DHXB	6-5x6	707	4.5	530	176-1800	7-3½x17¼	Y	BL 7341	4	Wis MH911	2F	H	** 7.95	WH MH91	4IA	738	975	a	FD	102	10⅛x3x⅜	P
88	Oshkosh	JCB	2	2885	153	200	12000	5700	7.00/20D	9.00/20	Her JXC	6-3¾x4¼	282	5.3	177	73-2800	7-2½x10 11/16	N	Fu	5	Own JCB	SF	H	4.4-5.2	Own JCB	L4IH	335	578	a	TX	71	6x3½x¼	C
89		JD	3	3490	153	200	14500	5900	7.50/20D	9.00/20	Her JXD	6-4x4¼	320	5.3	204	84-2800	7-2½x10 11/16	N	Fu	5	Own JD	SF	H	4.4-5.2	Own JD	L4IH	335	578	a	TX	71	6x3½x¼	P
90		B3S	3½-4	4790	146	201	21500	8250	10.50/20S	10.50/20	Her WXC3	6-4¼x4½	383	4.7	265	106-2800	7-2⅝x13¾	Y	Fu	5	Own B3S	SF	H	4.8-7.8	Own B3S	L4IH	510	867	G	TX	78¾	7x3x½	TfL
91		B3D36	4	5490	146	201	23000	8250	10.50/20S	10.50/20	Her WXC3	6-4¼x4½	383	4.7	265	100-2400	7-2⅝x13¾	Y	Fu	5	Own B3D36	F2	H	5.0-8.4	Own B3D36	L4IH	560	867	G	TX	78¾	7x3x½	TfL
92		C3S	4-5	4990	146	201	23800	8700	9.75/20D	11.25/20	Her YXC2	6-4½x4¾	453	4.4	300	100-2400	7-3x14	Y	Fu	5	Own C3S	SF	H	6.0-7.8	Own C3S	L4IH	518	867	G	TX	82	7x3x½	TfL
93		C3D	4-5	5985	146	201	24000	9575	9.75/20D	11.25/20	Her YXC2	6-4½x4¾	453	4.4	300	100-2400	7-3x14	Y	Fu	5	Own C3D	F2	H	5.6-8.4	Own C3D	L4IH	630	975	G	TX	82	7x3x½	TfL
94		FS36	5	6040	146	201	25000	9275	10.50/20S	11.25/20	Her RXB	6-4½x5¼	500	4.4	330	110-2200	7-3x12¼	Y	Fu	5	Own FS36	F2	H	6.5-8.4	Own FS36	L4IH	630	975	G	TX	82	7x3x½	TfL
95		FC36	6	6485	146	201	26000	9500	9.75/20D	11.25/20	Her RXB0	6-4½x5¼	500	5.4	360	121-2200	7-3x12¼	Y	Fu	5	Own FC36	F2	H	5.8-6.67	Own FC36	L4IH	630	975	G	TX	82	7x3x½	TfL
96		FB36	6-7	6750	146	201	29000	10300	10.50/20D	11.25/20	Her RXB0	6-4½x5¼	500	5.4	360	121-2200	7-3x12¼	Y	Fu	5	Own FB36	F2	H	5.8-6.67	Own FB36	L4IH	630	975	G	TX	82	8x3x½	TfL
97		FD36	7½	7450	146	201	30000	11500	10.50/20D	12.00/20	Her RXC0	6-4⅝x5¼	529	5.4	380	128-2200	7-3x13¼	Y	Fu	5	Own FD36	F2	H	6.2-7.1	Own FD36	L4IH	630	975	G	TX	82	8x3x½	TfL
98		BG3	10	8900	168	193	38000	14200	10.50/24D	13.50/20	Her HXB	6-5x6	707	4.5	455	148-2000	7-3½x16⅝	Y	BL	4	Own BG3	F2	H	4.7-6.8	Own BG3	B4IM	666	975	G	TX	85	10x3¼x½	L
99		GD36	10-12	9900	168	193	40000	14200	13.50/20S	13.50/20	Her HXE	6-5¾x6	935	4.5	610	199-2000	7-3½x16⅝	Y	BL	4	Own GD36	F2	H	5.3-7.4	Own GD36	A4IM	666	975	G	TX	85	10x3¼x½	L
100	Walter	FND	2½-3½	4600	126	150	16000	7000	9.75/20S	10.50/20S	Wau 6MK	6-4⅛x4¾	381	6.5	240	85-2500	7-2⅝x12½	Y	Own FN	5	Own FN	2D	H	6.1-8.1	Own FN	O4FIM	336	480	G	TX	84	7x2¼x¼	T
101		FQS	3-5	5000	138	150	20000	8000	9.00/20D	9.75/20	Wau 6-110	6-4x4¾	358	5.2	250	110-2800	7-2⅞x12½	Y	Own FN	5	Own FQ	2D	H	6.1-8.1	Own FN	O4FIM	336	480	G	TX	84	9x2½x¼	D
102		FJS	4-6	6000	138	150	23000	9000	9.75/20D	10.50/20	Wau 6-125	6-4⅜x5⅛	462	5.2	325	125-2500	7-3x13⅞	Y	Own FM	5	Own FJ	2D	H	6.1-8.1	Own FJ	O4FIM	336	480	G	TX	84	9x2½x¼	D
103		FMD	4-5	5500	126	150	20000	8000	9.00/20D	9.75/20	Wau 6SRL	6-4⅜x5⅛	462	5	320	110-2500	7-2⅞x12½	Y	Own FM	5	Own FM	2D	H	6.1-8.1	Own FM	O4FIM	336	480	G	TX	84	12x3½x¼	T
104		FJMT	5	6000	114	...	24000	9000	9.75/20D	10.50/20	Wau 6-125	6-4⅜x5⅛	462	5.2	325	125-2500	7-3x13⅞	Y	Own FM	5	Own FJM	2D	H	6.1-8.1	Own FJ	O4FIM	460	740	G	TX	72	12x3½x¼	TL
105		FKMD	5	6000	126	150	23000	9000	9.75/20D	10.50/20	Wau 6SRK	6-4⅝x5⅛	517	5	345	120-2500	7-3x13⅞	Y	Own FM	5	Own FJM	2D	H	6.1-8.1	Own FJ	O4FIM	336	480	G	TX	84	12x3½x¼	TL
106		FCKD	5-6	6600	126	138	25000	10000	9.75/24D	10.50/24	Wau 6SRK	6-4⅝x5⅛	517	5	345	120-2500	7-3x13⅞	Y	Own FC	5	Own FB	2D	H	7.1-10.1	Own FB	O4FIM	530	720	D	TX	84	13x3¾x¼	BL
107		FCS	5-7	7200	138	162	27000	11000	9.75/24D	10.50/24	Wau 6SRK	6-4⅝x5⅛	517	5	345	120-2500	7-3x13⅞	Y	Own FC	5	Own FB	2D	H	7.1-10.1	Own FB	O4FIM	530	720	D	TX	96	14x3¾x¼	B
108		FBS	5-8	8000	138	162	30000	11000	10.50/24D	11.25/24	Wau 6RB	6-5x5¾	677	5	460	150-2200	5-3½x10⅝	Y	Own FB	5	Own FB	2D	H	7.1-10.1	Own FB	O4FIM	530	720	D	TX	96	14x3¾x¼	B
109		FBRS	7-10	8600	138	162	35000	12000	11.25/24D	12.00/24	Wau 6RB	6-5x5¾	677	5	460	150-2200	5-3½x10⅝	Y	Own FB	5	Own FBR	2D	H	7.1-10.1	Own FB	O4FIM	550	900	D	TX	96	14x3¾x¼	B

Six-Wheelers

			Wheels Driven																															
110	(a) Autocar (7)	(a) 6x2 RL	2F	......	2715	164	182	32000	9345	8.25/20D	9.00/20	Own 358	6-4x4¾	358	5.5	250	85-2300	7-3x12⅝	Y	Own RL5	5	Own RL	2F	H	6.49-7.89	Tim 32502	LO4IDV	466	694	c	FD	84	8 11/16x3x 3/16	T
111		(a) 6x2 DF	2F		4250	164	218	36000	10485	9.00/20D	9.75/20	Own 404	6-4¼x4¾	404	5.5	295	97-2200	7-3x14⅜	Y	Own DF5	5	Own DFA	2F	H	6.49-7.89	Tim 35100	LO4IDV	580	930	c	FD	84	9x3x¼	T
112		(a) 6x2 NF	2F		5300	182	218	40000	11985	9.75/20D	10.50/20	Own 453	6-4½x4¾	453	5.5	333	108-2200	7-3x14⅜	Y	Own TF5	5	Own C	2F	H	7.20-9.43	Tim 26452	LO4IDV	580	930	c	FD	102	10½x3x¼	T
113		(a) 6x2 T	2F		5900	208	222	45000	12985	9.75/20D	10.50/20	Own 501	6-4½x5¼	501	5.5	375	123-2200	7-3¼x14 11/16	Y	Own TF5	5	Own CG	2F	H	7.69-8.52	Tim 26452	TO4IA	631	930	c	FD	128	10½x3x 3/16	T
114		6x4 DF	4R		5750	139	139	35000	11005	9.00/20D	9.00/20	Own 404	6-4¼x4¾	404	5.5	295	97-2200	7-3x14⅜	Y	Own DF5	5	Tim SD251	2F	H	7.66-8.44	Tim 35100	L4IHV	667	758	c	FD	59	9x3x¼	TL
115		6x4 TO	4R		8550	184	184	40000	14115	9.75/20D	9.75/20	Own 501	6-4½x5¼	501	5.5	375	123-2200	7-3¼x14 11/16	Y	Own TF5	5	Tim SDD352	2F	H	8.15-9.11	Tim 26452	T4IA	598	907	c	FD	104	10½x3x 3/16	TL
116		6x4 TD	4R		8700	142	142	40000	14415	9.75/24D	9.75/24	Own 501	6-4½x5¼	501	5.5	375	123-2200	7-3¼x14 11/16	Y	Own TF4A3	12	Tim SDD352	2F	H	8.15-9.11	Tim 26452	T4IA	598	907	c	FD	62	9x3x¼	TL
117		6x4 TC	4R		9500	142	142	52000	15045	10.50/24D	10.50/24	Own 501	6-4½x5¼	501	5.5	375	123-2200	7-3¼x14 11/16	Y	Own TF4A3	12	Tim SDD452	2F	H	8.15-9.11	Tim 26452	T4IA	598	907	c	FD	142	10½x3x 3/16	TL
118		(a) 6x2 UD	2F		4700	127	145	32000	10930	9.00/20D	9.75/20	Own 358	6-4x4¾	358	5.5	250	85-2300	7-3x12⅝	Y	Own UDF5	5	Own C	2F	H	7.20-9.43	Tim 35100	LO4IDV	580	930	c	FD	102¼	8x3x¼	T
119		(a) 6x2 UN	2F		5200	128	163	36000	11660	9.00/20D	9.75/20	Own 404	6-4¼x4¾	404	5.5	295	97-2200	7-3x14⅜	Y	Own UDF5	5	Own C	2F	H	7.20-9.43	Tim 26452	LO4IDV	580	930	c	FD	103¼	9x3x¼	T
120		(a) 6x2 UNF	2F		5500	128	163	40000	12290	9.75/20D	10.50/20	Own 453	6-4½x4¾	453	5.5	333	108-2200	7-3x14⅜	Y	Own UTF5	5	Own C	2F	H	7.20-9.43	Tim 26452	LO4IDV	580	930	c	FD	103¼	9x3x¼	T
121		(a) 6x2 UT	2F		5800	145	163	45000	13130	9.75/20D	10.50/20	Own 501	6-4½x5¼	501	5.5	375	123-2200	7-3¼x14 11/16	Y	Own UTF5	5	Own CG	2F	H	7.69-8.52	Tim 26452	TO4IA	631	930	c	FD	120¼	10½x3x 3/16	T
122		6x4 UTO	4R		8500	118	118	40000	13590	9.75/20D	9.75/20	Own 501	6-4½x5¼	501	5.5	375	123-2200	7-3¼x14 11/16	Y	Own UTF5	5	Tim SDD352	2F	H	8.15-9.11	Tim 26452	T4IA	598	907	c	FD	93¼	9x3x¼	TL
123		6x4 UTD	4R		8750	109	109	48000	13490	9.75/24D	9.75/24	Own 501	6-4½x5¼	501	5.5	375	123-2200	7-3¼x14 11/16	Y	Own UTF5	5	Tim SDD352	2F	H	8.15-9.11	Tim 27452	T4IA	598	907	c	FD	84¼	9x3x¼	TL
♦124	Bro'kway	180XSBT		5-7	4350	195	207	.....	9800	8.25/20D	9.00/22	Con 32B	6-4⅛x4½	361	5.4	252	95-2500	7-2⅝x13	Y	Fu 5A38	5	Tim 251SBT	SF	R	5.57-6.83	Shu 15695B1	L6IHV	685	1224	a	CD	125 3/16	8¼x3x⅜	B
♦125		180XSBT Spec.		5-7	4950	195	207	.....	10270	8.25/20D	9.00/22	Con 34B	6-4½x4½	427	4.2	308	118-2600	7-2¾x13 3/16	Y	Fu 5A53	5	Tim 251SBT	SF	R	5.57-6.83	Shu 15695B1	L6IHV	685	1224	a	CD	125 3/16	8¼x3x⅜	B
126	Corbitt	16SB2	2F	2½-4	2000	175	200	.....	5300	7.50/20D	7.50/20	Wau 6BK	6-3¾x4¼	282	5.4	190	80-2800	7-2⅝x10¼	N	Cla B116	4	Tim SBT75	SF	A	5.14-6.6	Tim 30020H	L6IHV	382	608	a	TX	Opt	7x3½x¼	T
127		24SB2	2F	4-6	3750	175	200	.....	7670	8.25/20D	8.25/20	Wau 6MK	6-4⅛x4¾	381	4.8	240	85-2400	7-2⅝x12½	N	Fu 5A380	5	Tim SBT151	SF	A	5.8-6.8	Tim 33000H	L6IHV	544	930	a	TX	Opt	8x3½x¼	T
128		30SB2	2F	6-8	4800	190	225	.....	9100	9.00/20D	9.00/20	Wau 6SRL	6-4⅜x5⅛	462	4.5	300	100-2200	7-3x13⅞	N	Fu 5A530	5	Tim SBT251	SF	A	5.28-7.4	Tim 33000H	L6IHV	636	1096	a	TD	Opt	8x3½x¼	T
129		36SD2	2F	8-10	5800	190	225	.....	10700	9.75/20D	9.75/20	Wau 6-125	6-4⅜x5⅛	462	5.2	330	125-2500	7-3x13⅞	N	Fu 5A530	5	Tim SDT320	2F	A	5.56-7.8	Tim 35000H	L6IA	918	1306	a	TD	Opt	8x3½x¼	T
130		18SD4	4R	2½-4	3950	Op	Op	.....	5800	6.50/20D	7.50/20	Wau 6MK	6-4⅛x4¾	381	4.8	240	85-2400	7-2⅝x12½	N	Fu 5A380	5	Tim SD75	w/2	A	5.14-6.6	Tim 33000H	L6IHV	396	678	a	TX	Opt	7x3½x¼	T
131		26SD4	4R	4-6	5720	Op	Op	.....	9000	7.50/20D	9.00/20	Wau 6MZ	6-4¼x4¾	404	6.0	274	90-2400	7-2⅝x12½	N	Fu 5A380	5	Tim SD151	w/2	A	5.28-7.4	Tim 33000H	L6IHV	574	930	a	TX	Opt	8x3½x¼	T
132		33SD4	4R	6-8	6380	Op	Op	.....	10000	8.25/20D	9.75/20	Wau 6SRL	6-4⅜x5⅛	462	4.5	300	100-2200	7-3x13⅞	N	Fu 5A530	5	Tim SD251	w/2	A	5.56-7.8	Tim 35000H	L6IHV	636	1096	a	TD	Opt	8x3½x¼	T
133		40SD4	4R	8-10	8800	Op	Op	.....	11500	9.00/20D	10.50/22	Wau 6SRK	6-4⅝x5⅛	517	4.6	330	110-2200	7-3x13⅞	N	Fu 5A530	5	Tim SD352W	w/2	A	6.85-9.41	Tim36000TW	Ws6IA	824	1306	a	TD	Opt	8x3½x¼	T
134		54SD4	4R	10-15	11000	Op	Op	.....	13000	9.75/20D	11.25/22	Wau 6-125	6-4⅜x5⅛	462	5.2	330	125-2500	7-3x13⅞	N	Fu 5A530	5	Tim SD452W	w/2	A	7.92-9.98	Tim27450TW	Ws6IA	964	1516	a	TD	Opt	12¼x3¼x 3/16	T
135		18SD6	6	2½-4	5500	Op	Op	.....	7300	6.50/20D	7.50/20	Wau 6MZ	6-4¼x4¾	404	6.0	274	90-2400	7-2⅝x12½	N	Fu 5A380	5	Tim SD75	2F	A	5.14-6.6	Wis F75AB	L6IHV	396	678	a	TX	Opt	8x3½x¼	T
136		26SD6	6	4-6	7500	Op	Op	.....	8200	7.50/20D	9.00/20	Wau 6SRK	6-4⅝x5⅛	462	4.5	300	100-2200	7-3x13⅞	N	Fu 5A530	5	Tim SD151	2F	A	5.28-7.4	Wis F211	Ws6IA	638	1139	a	TD	Opt	8x3½x¼	T
137		40SD6	6	6-8	8900	Op	Op	.....	11700	8.25/20D	9.75/20	Wau 6RB	6-5x5¾	677	4.4	440	125-1800	4-3½x11⅜	N	Fu MHU	4	Tim SD251	2F	A	5.56-7.8	Wis F211	Ws6IA	852	1305	a	TD	Opt	8x3½x¼	T
138		54SD6	6	8-10	12300	Op	Op	.....	14600	9.00/20D	11.25/22	Wau 6RB	6-5x5¾	677	4.4	440	125-1800	4-3½x11⅜	N	Fu MHU	4	Tim SD352W	2F	A	6.85-9.41	Wis F311	Ws6IA	1084	1625	a	TD	Opt	12¼x3¼x 3/16	T
139		548D6	6	10-15	16900	Op	Op	.....	15400	9.75/22D	10.50/22	Her HXC	6-5¼x6	779	4.5	508	164-2000	7-3½x17	N	BL 7341	4	Tim SD452W	2F	A	7.92-9.98	Wis F311W	Ws6IA	1084	1625	a	TD	Opt	12¼x3¼x 3/16	T
140	Day-Elder	151T	2R	3	1695	156	199	15000	5300	6.00/20D	8.25/20	Her JXB	6-3⅝x4¼	263	4.4	164	68-2800	7-2½x10 11/16	Y	WG T9	4	TimSBT75H	BF	H	4.56-6.6	Tim 30000H	L6IHV	422	606	a	XF	77½	7x3½x¼	C
141		211T	2R	4	2175	156	199	21000	6400	32x6D	32x6	Her JXC	6-3¾x4¼	282	4.4	176	73-2800	7-2½x10 11/16	Y	WG T9	4	Ti SBT151H	BF	R	4.44-7.4	Tim 31000H	L6IHV	529	930	a	XF	108½	7x3½x¼	C
142		251T	2R	5	2950	165	204	25000	8100	32x6D	8.25/20	Her WXC	6-4x4½	339	4.7	234	94-2800	7-2⅝x13¼	Y	Fu MLU	4	Ti SBT251H	BF	R	4.55-7.8	Tim 33000H	L6IHV	636	1094	a	DF	118½	9x3½x¼	C
143		281T	2R	6	3350	165	204	28000	8300	8.25/20D	9.00/20	Her WXC3	6-4¼x4½	383	4.7	265	106-2800	7-2⅝x13¼	Y	Fu MGU	4	Ti SBT251H	BF	R	4.55-7.8	Tim 33000H	L6IHV	636	1094	a	DF	118½	9x3½x¼	C
144		301D	4R	7	4000	165	204	30000	8400	9.00/20D	9.75/20	Her WXC3	6-4¼x4½	383	4.7	265	106-2800	7-2⅝x13¼	Y	Fu 5A530	5	Ti SWD251H	WF	R	5.0-9.25	Tim 33000H	L6IHV	636	1094	a	DF	149	10x3¾x 3/16	C
145		331D	4R	8	4895	165	234	33000	10600	9.00/20D	9.75/20	Her RXC	6-4⅝x5¼	529	4.4	350	114-2200	7-3x12½	Y	Fu 5A530	5	Ti SWD251H	WF	R	5.0-9.25	Tim 26450H	L6IHV	664	1194	a	DF	149	10x3¾x 3/16	C
146	Fageol	226BK	2F	5-6	2475	183	196	23600	7000	7.50/20D	8.25/20	Wau 6BK	6-3¾x4¼	282	5.1	190	82-2800	7-2⅝x10¼	N	WG T9	4	Tim SBT151	BF	R	4.44-7.4	Tim 31000H	L4IHV	557	929	G	TX	104	8x3x¼	T
147		326HP	2F	6-8	4000	201	215	31400	8950	9.00/20D	9.75/20	Wau 6-110	6-4x4¾	358	5.2	254	110-2800	7-2⅞x12½	Y	BL 5241	4	Tim SBT251	BF	R	5.56-7.8	Tim 35020H	L4IHV	643	1093	G	FD	118½	10⅜x3½x¼	T
148	(D)	326D	2F	6-8	6000	206	220	31400	9750	9.00/20D	9.75/20	Wau6DA100	6-4⅜x5⅛	462	17.	275	100-2200	7-3⅜x13¾	Y	BL 5341	4	Tim SBT251	BF	R	5.56-7.8	Tim 35020H	L4IHV	643	1093	G	FD	119½	10⅜x3½x¼	T
149		846HP	4R	8	7200	211	222	42000	13300	9.75/20D	10.50/20	Wau 6-125	6-4⅜x5⅛	462	5.2	324	125-2600	7-3x13⅞	Y	FU MHU	4	Tim Own	WF	R	6.0-9.25	Tim 26050N	Ws4rIA	760	1083	H	FD	124½	15x4x 3/16	T
150		846AL	4R	8	8200	211	222	42000	11150	9.75/20D	10.50/20	Wau 6-125	6-4⅜x5⅛	462	5.2	324	125-2600	7-3x13⅞	Y	FU MHU	4	Tim Own	WF	R	6.0-9.25	Tim 26050N	Ws4rIA	760	1083	H	FD	124½	15x4x⅜	T
151	(D)	846ALD	4R	8	10200	222	233	42000	12250	9.75/20D	10.50/20	Wau6DB140	6-5x5½	648	17.	410	140-2200	7-3⅝x18¾	Y	FU MHU	4	Tim Own	WF	R	6.0-9.25	Tim 26050N	Ws4rIA	760	1083	H	FD	127¼	15x4x⅜	T
152		1046RB	4R	10	8250	222	233	58000	14500	9.75/20D	10.50/20	Wau 6RB	6-5x5¾	677	4.4	440	125-1800	4-3½x11⅜	N	FU MHU	4	Tim Own	WF	R	6.0-9.5	Tim 27050N	Ws4rIA	760	1083	H	FD	127¼	15x4x 3/16	T
153		1046AL	4R	10	9250	222	233	58000	12400	9.75/20D	10.50/20	Wau 6RB	6-5x5¾	677	4.4	440	125-1800	4-3½x11⅜	N	FU MHU	4	Tim Own	WF	R	6.0-9.5	Tim 27050N	Ws4rIA	760	1083	H	FD	127¼	15x4x⅜	T
154	(D)	1046ALD	4R	10	11250	222	233	58000	13500	9.75/20D	10.50/20	Wau6DB140	6-5x5½	648	17.	410	140-2200	7-3⅝x18¾	Y	FU MHU	4	Tim Own	WF	R	6.0-9.5	Tim 27050N	Ws4rIA	760	1083	H	FD	127¼	15x4x⅜	T
155	F.W.D.	X6	4F	10-12	8165	170	Op	40000	13400	10.50/20D	10.50/20	Wau 125	6-4⅜x5⅛	462	5.2	330	125-2500	7-3x13⅞	..	Own U	5	Own X	BF	H	....	Own M	O61A	864	....	G	4I	137	7x3x 11/16	C
156		MX6	6	10-15	12225	200	Op	52400	17200	13.50/20S	13.50/20	Wau RB	6-5x5¾	677	4.4	440	127-2000	4-3½x11⅜	Y	BL 7341	4	Wis 131TW	2F	H	5.78-9.35	Wis 131F	B6IMV	928	1302	G	T4	145	10x3x 11/16	C
157	Hen-drik'n(12)	21DA	4R	2-6	3100	144	286	21000	7000	34x7D	8.25/20	Wau 6BK	6-3¾x4¼	282	5.1	180	85-3200	7-2⅝x10¼	Y	Fu 5-A-33	5	Own 1686	SF	H	6.5-7.4	Cla F320	L6IHV	575	800	p	TD	Opt	8x3x 3/16	C
158		25D	4R	3-8	3900	144	286	25000	8000	8.25/20D	8.25/20	Wau 6-110	6-4x4¾	358	4.6	254	110-2800	7-2⅝x12½	Y	Fu 5-A-38	5	Own 1686	SF	H	6.5-7.4	Cla F320	L6IHV	575	800	p	TD	Opt	8x3x 3/16	C
159		32D	4R	4-9	4900	144	286	32000	10500	9.00/20D	9.75/20	Wau 6-110	6-4x4¾	358	4.6	254	110-2800	7-2⅝x12½	Y	Fu 5-A 38	5	Own 2530	SF	R	**7.16	Cla F320	L6IHV	700	1055	G	TD	Opt	8x3x 3/16	P
160		38D	4R	5-12	6600	144	286	38000	11200	9.75/20D	9.75/20	Wau 6-125	6-4⅜x5⅛	462	4.6	324	125-2600	7-3x13⅞	Y	Fu 5-A-62	5	Own 2530	SF	R	**7.16	Tim 27450H	L6IHV	700	1175	G	TD	Opt	8x3x 3/16	P
161		40D	4R	12	8000	170	290	40000	13200	9.75/20D	11.25/20	Wau 6-125	6-4⅜x5⅛	462	4.6	324	125-2600	7-3x13⅞	Y	Fu 5-A-62	5	Eat 44000	2F	R	**8.6	Tim 27450W	Ws6IA	780	1388	G	TD	Opt	8x3x 3/16	P
162		44D	4R	12	9000	170	290	44000	14000	9.75/20D	11.25/20	Wau 6RB	6-5x5¾	677	4.6	440	126-1850	4-3½x10 1/16	Y	BL 70-7	7	Eat 44000	2F	R	**8.6	Tim 27450W	Ws6IA	788	1388	G	TD	Opt	8x3x 3/16	P

♦ Denotes New Models or Change in Specifications.

For abbreviations see page 305

Line Number	MAKE AND MODEL	GENERAL (See Keynote) Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight with Max. Tires	Chassis Wt. (Stripped)	TIRE SIZES D-dual rear S-single rear: Standard Front and Rear	Maximum Tire Size Furnished	ENGINE DETAILS: Make and Model	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M. Given	Main Bearings: Number, Diameter and Length	Governor Standard	TRANSMISSION: Make and Model	Forward Spds'	REAR AXLE: Make and Model	Gear and Type	Drive & Torque	Gear Ratio Range in High	FRONT AXLE: Make and Model	BRAKES: SERVICE Make Location Type Operat'n	Lining Area	Drum Area	Drum Material	Hand Location Type	GA Dimension (Std. W. B.)	FRAME: Side Rail Dimensions	Type
	Six-Wheelers Wheels Driven (Continued)																														
1	Hug.....97LD	4R 7½	8550	148	148	50000	12990	10.50/20D	10.50/20	Bud L525	6-4⅛x5½	525	4.8	340	111-2200	7-3x11½	Y	Fu 5A620	5	Wis SD310AH	2F	R	7.33* 9.11	Shu 715	L4r1H	720	868	a	TD	88¼	9x4½x⅜	I
2	99	4R 10	10324	148	148	64500	15100	10.50/20D	10.50/20	Bud GF638	6-4¾x6	638	4.3	406	128-1800	4-3x10⅜	Y	Spi 7341-703	4	Wis SD420BW	2F	R	7.33* 11.7	Shu 1679	Ws6IA	806	1522	a	TD	88¼	9x4½x⅜	I
3	(D).....954FR	18	11800	131	131	50000	18000	18.00/24S	18.00/24S	Cat D8800	4-5¼x8	831	15.	476	77-850	6-3½x14	Y	Spi 7341	4	Wis 1910W	2F	H	**-9.15	Wis F417CW	41A	648	976	a	TD	83	8x4¼x½	II
4	Ind958BT-151	2F 4-5½	1875	168	186	.....	6125	32x6D	8.25/20	Her JXC	6-3¾x4¼	282	5.4	176	73-2800	7-2½x10⅜	Y	BL 2353	4	Tim SBT151	SF	A	6.17-7.40	Tim 31020H	L6IHV	530	931	G	TX	83	7⅛x2¾x⅜	T
5	...958W-75	4R 3½-5	1900	168	186	.....	5800	32x6D	7.50/20	Her JXC	6-3¾x4¼	282	5.4	176	73-2800	7-2½x10⅜	Y	BL 2353	4	Tim SW75	WF	A	6.2-7.4	Tim 31020H	L6IHV	530	688	G	TX	83	7⅛x2¾x⅜	T
6	.....16X6	6 3-4	***	160	Op	.....	8000	7.00/20D	7.50/20	Her YXC	6-4⅜x4¾	428	4.5	283	94-2200	7-3x14	Y	BL 5341	4	Wis SFD151	2F	A	5.90-7.66	Wis F200	L41HV	406	914	G	TD	72	8½x3x⅛	T
7	.....18X6	6 4½-6	***	172	Op	.....	10500	8.25/20D	8.25/20	Her RXC	6-4⅝x5¼	529	5.4	350	111-2000	7-3x14	Y	BL 5341	4	Wis SD251H	2F	A	7.66-8.44	Wis 210	L41HV	576	1299	G	TD	84	8¼x3x⅜	T
8	.....20X6	6 5½-8	***	200	Op	.....	15000	9.75/20D	9.75/20	Her HXB	6-5x6	707	5.4	455	148-2000	7-3½x17	Y	BL 7341	4	Wis SFD320W	2F	A	7.33-9.11	Wis F310	Ws41A	588	1517	G	TD	99	10x3x⅛	T
9	.....22X6	6 7½-10	***	200	Op	.....	16000	9.75/24D	9.75/24	Her HXB	6-5x6	707	5.4	455	148-2000	7-3½x17	Y	BL 7341	4	Wis SFD420W	2F	A	7.33-9.11	Wis F310	Ws41A	588	1517	G	TD	100	10x3x⅛	T
	Inter-																														
♦ 10	national C35T	2F 1½-4	1575	168	186	19000	5410	6.50/20D	7.50/20	Own FAB223	6-3 1/16x4	223	5.4	160	78-3400	4-2⅝x5⅛	N	Own H4A	4	Own	SF	HT	5.62-7.40	Own H108HT	B6IH	462	648	c	TX	84⅜	7⅛x3⅛	TL
♦ 11	.....CS35T	2F 1½-4	1670	168	186	19000	5440	6.50/20D	7.50/20	Own FAB223	6-3 1/16x4	223	5.4	160	78-3400	4-2⅝x5⅛	N	Own H4A	4	Own	SF	HT	5.14-8.10	Own H108HT	B6IH	462	648	c	TX	84⅜	7⅛x3x⅛	TL
12	.....C40T	2F 2-5	2200	168	204	24000	6490	7.50/20D	34x7	Own FAB223	6-3 1/16x4	223	5.4	160	78-3400	4-2⅝x5⅛	N	Own F5	5	Own	SF	HT	5.62-7.40	Own 251½H	B6IHV	590	816	c	TX	84⅜	8⅛x3½x⅛	TL
♦ 13	.....CS40T	2F 2-5	2335	168	204	24000	6520	7.50/20D	34x7	Own FAB223	6-3 1/16x4	223	5.4	160	78-3400	4-2⅝x5⅛	N	Own F5	5	Own	SF	HT	5.14-8.10	Own 251½H	B6IHV	590	816	c	TX	84⅜	8⅛x3½x⅛	TL
♦ 14	.....C40F	4R 2-5	2975	168	204	24500	7200	7.50/20D	34x7	Own FAB223	6-3 1/16x4	223	5.4	160	78-3400	4-2⅝x5⅛	N	Own F5	5	Own 1540	SF	HT	5.16-12.28	Own 251½H	B6IHV	590	816	c	TX	84⅜	8⅛x3½x⅛	TL
15	.....C50F	4R 3-6	3950	170	206	28500	8405	8.25/20D	9.00/20	Ow FBB279	6-3⅝x4½	279	4.7	191	83-2900	7-2⅜x11⅛	Y	Own H5	5	Own 1540	SF	HT	5.16-12.2	Own 350H	B6IHV	617	855	C	TX	84¾	8⅛x4x⅛	TL
16	.....C50T	2F 3-6	3300	170	206	28000	7905	8.25/20D	9.00/20	Ow FBB279	6-3⅝x4½	279	4.7	191	83-2900	7-2⅜x11⅛	Y	Own H5	5	Own	SF	HT	6.14-7.2	Own 350H	B6IHV	626	892	c	TX	84¾	8⅛x4½x⅛	TL
17	.....CS50T	2F 3-6	3450	170	206	28000	7980	8.25/20D	.....	Ow FBB279	6-3⅝x4½	279	4.6	191	83-2900	7-2⅜x11⅛	Y	Own H5	5	Own 950HT	SF	H	5.62-8.74	Own 350H	B6IHV	625	892	c	TX	84¾	8⅛x4x⅛	TL
18	.....C55F	4R 3½-7	4950	170	224	36700	10170	9.00/20D	9.75/20	Ow FBB298	6-3¾x4½	298	5.7	214	90-2800	7-2⅜x11⅛	Y	Own H5	5	Own 1555	SF	HT	5.69-11.89	Own 350HT	B6IHV	775	1106	c	TX	85½	8⅛x4⅛x⅜	TL
19	.....C55T	2F 3½-7	3950	170	224	36000	9315	9.00/20D	9.75/20	Ow FBB298	6-3¾x4½	298	5.7	214	90-2800	7-2⅜x11⅛	Y	Own H5	5	Own	SF	HT	6.43-7.16	Own 350HT	B6IHV	775	1106	c	TX	85½	8⅛x4⅛x⅜	TL
20	.....C60T	2F 3½-7	4075	170	224	36000	9395	9.00/20D	9.75/20	Ow FBB298	6-3¾x4½	298	5.7	214	90-2800	7-2⅜x11⅛	Y	Own H5	5	Own	2F	HT	7.1 -9.43	Own 350HT	B6IHV	775	1106	c	TX	84¾	8⅛x4⅛x⅜	TL
21	.....A7F	4R 5-7½	8950	190	226	43800	13750	9.75/20D	9.75/24	Own FDB	6-4½x5½	525	4.5	358	123-2200	7-3¼x17⅜	Y	Own H7	5	Own 1570	SF	RT	5.04-11.8	Own 503	T6IA	809	1175	C	TD	120	12⅛x3½x⅜	T
22	Ken....898BT	2F 7	2686	188	224	26500	7350	32x6D	9.00/20	Her JXCM	6-3¾x4¼	282	5.7	176	83-2500	7-2½x10⅜	N	BL 234	4	Tim SBT151	SF	A	6.16-7.4	Tim 31000H	L6IHV	624	930	a	TX	102	8x3x½	C
23	....127SBT	2F 8	3598	188	224	28000	8000	8.25/20D	9.00/20	Her WXC2	6-4½x4½	361	5.0	250	100-2800	7-2⅝x13¼	N	BL 3341	4	Tim SBT151	SF	A	6.16-7.4	Tim 33000H	L6IHV	624	930	a	FD	102	8x3x½	C
24	....146SBT	2F 9	4062	188	224	33000	8400	9.00/20D	9.75/20	Bud K593	6-4⅛x4¾	393	4.9	260	103-2600	7-3x11½	N	BL 3341	4	Tim SBT251	SF	A	6.8-7.8	Tim 33000H	L6IHV	720	1093	a	FD	102	8x3x½	C
25	(D) D-346-C	4R 10	9851	210	240	42000	14600	9.75/20D	9.75/20	Cum HB6	6-4⅞x6	672	17.	420	125-1800	7-3¼x13⅜	Y	BL 7341	4	Tim SW352	WF	H	6.0-7.6	Tim 36020W	Ws4rA	720	1192	a	FD	120	8x3x½	C
26	.....346C	4R 10	9397	210	240	42000	14000	9.75/20D	9.75/20	HaS 175	6-5x6	707	5.0	506	179-1800	7-3¼x11⅛	Y	BL 7341	4	Tim SW352	WF	H	6.0-7.6	Tim 36020N	Ws2rA	720	1192	a	FD	120	8x3x½	C
27	.....386C	4R 10	10100	210	240	50100	14500	9.75/20D	10.50/20	HaS 175	6-5x6	707	5.0	506	179-1800	7-3¼x11⅛	Y	BL 7341	4	Tim SW452	WF	H	6.0-7.6	Tim 36020N	Ws2rA	1014	1192	a	FD	120	8x3x½	C
28	Kleiber.....81	2R 5	3200	180	190	20000	6500	32x6D	.....	Her JXB	6-3⅝x4¼	263	5.4	164	70-3000	7-2½x10⅜	..	BL 2241	4	Tim SBT75	2F	R	5.14-6.6	Tim 30000H	L6IHV	412	412	G	TD	104	7½x3⅛x⅛	CC
29	121	2R 7	4200	190	200	26000	8500	8.25/20D	.....	Con 18R	6-4x4½	339	4.2	212	90-2700	7-2¾x13⅛	..	BL 3241	4	Tim SBT151	2F	R	6.17-7.4	Tim 33020H	L6IHV	559	559	G	TD	108	7½x3⅛x⅛	CC
30	141	2R 9	5000	200	210	33000	9500	9.00/20D	.....	Con 21R	6-4⅛x4¾	427	4.2	270	118-2500	7-2¾x13⅛	..	BL 5241	4	Tim SBT251	2F	R	5.47-7.8	Tim 33020H	L6IHV	654	654	G	TD	118	7½x3⅛x⅛	CC
31	LeMoon407SW754	R 2-5	***	144	Op	.....	6500	6.50/20D	32x6	Wau 6BK	6-3¾x4¼	282	5.2	190	85-3200	7-2½x10⅛	N	BL 234	4	Tim SW75	WF	H	6.2-7.4	Tim 30000H	L6IHV	532	688	A	TX	Opt	8x3½x⅛	.....
32	..407SW151	4R 3-6	***	144	Op	.....	7000	32x6D	8.25/20	Wau 6BK	6-3¾x4¼	282	5.2	190	85-3200	7-2½x10⅛	N	BL 234	4	Tim SW151	WF	H	6.6-7.4	Tim 32502H	L6IHV	593	931	A	TX	Opt	8x3½x⅛	.....
♦ 33	..507SW151	4R 4-8	***	187	199	.....	8000	32x6D	8.25/20	Wau 6MK	6-4⅛x4¾	381	6.5	242	85-2400	7-2½x12½	Y	BL 3341	4	Tim SW151	WF	H	6.6-7.4	Tim 32502H	L6IHV	593	931	A	TD	Opt	9x4x¼	.....
♦ 34	..607SW251	4R 5-10	4900	187	199	.....	9720	9.00/20D	9.75/20	Wau 6SRL	6-4⅜x5½	462	4.5	300	102-2400	7-3x13⅞	Y	BL 5341	4	Tim SW251	WF	H	6.2-9.1	Tim 35000H	L6IHV	633	1100	A	CD	Opt	9x4x¼	.....
35	907	4R 7-8	7950	191	203	.....	12000	9.75/20D	40x8	Wau 6-125	6-4⅜x5½	462	5.2	330	125-2500	7-3x13⅞	Y	BL 5351	5	TimSW310W	WF	H	7.25-9.25	Tim 35000tw	Ws4IA	966	1517	c	CD	108	9x4x¼	B
36	1200	4R 10-12	8500	196	208	.....	14000	9.75/20D	40x8	Wau 6RB	6-5x5¾	677	4.6	460	127-2000	4-3 1/16x11¾	Y	BL 7351	5	TimSW410W	WF	H	7.6-9.5	Tim 26050W	Ws4IA	966	1517	c	CD	108	9x4x⅜	B
37	(1)...1200D	4R 10-12	9750	196	208	.....	14000	9.75/20D	40x8	Cum.Die.H6	6-4⅞x6	672	17.1	420	125-1800	7-3¼x16½	Y	BL 7351	5	TimSW410W	WF	H	7.6-9.5	Tim 26050W	Ws6IA	966	1517	c	CD	108	9x4x⅜	B
♦ 38	Mack.....BX	2F	7000	196	221	.....	13050	8.25/22D	9.75/24	Own CF	6-4¼x5½	468	5.0	310	118-2400	7-3x12⅜	Y	Own CF	5	Own BX	2F	A	6.54-8.92	Own BX	O6IA	974	1518	a	FX	125	9½x3x¼	T
♦ 39	.....BX	4R	7500	194	219	.....	14050	8.25/22D	9.75/24	Own CF	6-4¼x5½	468	5.0	310	118-2400	7-3x12⅜	Y	Own CF	5	Own BX6	2F	A	6.54-10.0	Own BX	O6IA	974	1518	a	FX	125	9½x3x¼	T
40	(e.b.s.)...CJ	2F	7850	149	188	.....	13100	8.25/22D	9.75 24	Own CF	6-4¼x5½	468	5.0	310	118-2400	7-3x12⅜	Y	Own CF	5	Own BX	2F	A	6.54-8.92	Own CJ	O6IA	974	1518	a	FX	123	9½x3x¼	T
♦ 41	(e.b.s.)...CJ	4R	8350	147	186	.....	13950	8.25/22D	9.75/24	Own CF	6-4¼x5½	468	5.0	310	118-2400	7-3x12⅜	Y	Own CF	5	Own BX6	2F	A	6.54-10.0	Own CJ	O6IA	974	1518	a	FX	123	9½x3x¼	T
42	.....BQ	2F	8850	199	235	.....	15150	9.75/22D	9.75/24	Own BQ	6-4¾x5¾	611	4.8	390	125-2200	4-3½x10⅛	Y	Own AK	4	Own AK	2F	A	7.43-10.0	Own BQ	O6IA	1065	1626	a	FX	123	10½x3x¼	T
43	.....BQ	4R	9350	197	233	.....	15550	9.75/22D	9.75/24	Own BQ	6-4¾x5¾	611	4.8	390	125-2200	4-3½x10⅛	Y	Own AK	4	Own BX6	2F	A	6.54-10.0	Own BQ	O6IA	1065	1626	a	FX	123	10½x3x¼	T
♦ 44	Mar.-Herr....C5-6	3-6	2515	154	.....	.....	5821	6.00/20D	32x6	Ford V8	8-3⅛x3⅜	221	6.12	146	85-3800	3-2.4x5⅜	N	Ford	4	Tim	SF	R	** 6.6	Own IX41	6IH	496	629	a	2/6I	80½	7½x2¾x⅜	TL
♦ 45	.....C6-6	3-6	2565	179	.....	.....	5925	6.00/20D	32x6	Ford V8	8-3⅛x3⅜	221	6.12	146	85-3800	3-2.4x5⅜	N	Ford	4	Tim	SF	R	** 6.6	Own IX41	6IH	496	629	a	2/6I	105½	7½x2¾x⅜	TL
46	.....C20-6	5-6	3995	167	Op	.....	7800	.....	7.00/20	Her JXC	6-3¾x4¼	282	5.3	196	84-2800	7-2½x10⅜	N	Fu 5A33	5	Wis MH922	2F	R	7.36	WH MH92	6IH	549	930	a	TX	84	7½x2½x½	P
47	.....C30-6	6-8	4795	167	Op	.....	8400	7.50/20D	8.25/20	Her JXD	6-4x4¼	320	5.3	224	95-2800	7-2½x10⅜	N	Fu 5A33	5	Wis MH933	2F	R	7.66	WH MH93	6IH	600	1055	a	TX	84	7½x2½x½	P
♦ 48	.....C50-6	7-9	7135	158	Op	.....	10000	8.25/22D	9.00/20	Her WXLC3	6-4¼x4⅝	404	5.0	293	118-2800	7-2½x13¼	Y	Fu 5A430	5	Wis MH955	2F	R	9.33	WH MH95	6IA	726	1300	a	FD	72	9½x3x¼	P
♦ 49	.....C60-6	8-10	8500	173	Op	.....	11700	.....	9.00/20	Her RXB	6-4½x5¼	501	4.5	330	110-2200	7-3x14	Y	Fu 5A620	5	Wis MH955	2F	R	8.44	WH MH95	6IA	726	1300	a	FD	84	9½x3x¼	P
50	.....C80-6	10-12	1920	173	Op	.....	13690	9.75/20D	9.75/22	Her RXC	6-4⅝x5¼	529	4.9	350	114-2200	7-3x14	Y	Fu 5A620	5	Wis MH966	2F	R	** 8.15	WH MH96	6IA	1056	1626	a	FD	84	10⅛x3	P
51	.....TH515-6	14-17	14000	192	Op	.....	16800	9.75/20D	9.75/22	Her HXD	6-5½x6	855	4.5	555	180-2000	7-3½x17	Y	BL 7341	4	Wis MH966	2F	R	** 9.11	WH MH96	6IA	1056	1626	a	FD	96	8½x3x⅛	P
52	.....TH520-6	17-20	16000	198	Op	.....	19000	10.50/20D	10.50/24	Her HXE	6-5¾x6	935	4.5	610	198-2000	7-3½x17	Y	BL 7341	4	Wis MH977	2F	R	** 9.11	WH MH97	6IA	1056	1626	a	FD	102	10½x3x⅜	P
53	(D).....CD20-6	5-6	5270	167	Op	.....	8750	.....	7.00/20	Her DJXB	6-3½x4½	260	...	178	79-2600	7-3x10⅜	Y	Fu 5A33	5	Wis MH922	2F	R	6.66	WH MH92	6IH	549	930	a	TX	84	7½x2½x½	P
54	(D).....CD30-6	6-8	6070	167	Op	.....	9410	7.50/20D	8.25/20	Her DJXC	6-3¾x4½	298	...	194	90-2600	7-3x10⅜	Y	Fu 5A33	5	Wis MH933	2F	R	6.41	WH MH93	6IH	600	1055	a	TX	84	7½x2½x½	P
55	(D).....CD55-6	7-9	9950	170	Op	.....	12000	.....	9.00/20	Her DRXB	6-4⅜x5¼	474	...	350	124-2200	7-3x13¼	Y	Fu 5A620	5	Wis MH955	2F	R	7.66	WH MH95	6IA	726	1300	a	FD	84	9½x3x¼	P
56	(D).....CD80-6	10-12	14350	161	Op	.....	14615	9.75/20D	9.75/22	Her DRXB	6-4⅜x5¼	474	...	350	124-2200	7-3x13¼	Y	Fu 5A620	5	Wis MH966	2F	R	** 8.15	WH MH96	6IA	1056	1626	a	FD	84	10⅛x3x⅛	P
57	(D)...THD515-6	14-17	16650	192	Op	.....	17475	9.75/20D	9.75/22	Her DHXB	6-5x6	707	...	530	176-1800	7-3½x17¼	Y	BL 7341	4	Wis MH966	2F	R	** 8.15	WH MH96	6IA	1056	1626	a	FD	96	8½x3x⅛	P
58	(D)...THD520-6	17-20	18400	198	Op	.....	19650	10.50/20D	10.50/24	Her DHXB	6-5x6	707	...	530	176-1800	7-3½x17¼	Y	BL 7341	4	Wis MH977	2F	R	** 8.15	WH MH97	6IA	1056	1626	a	FD	102	10½x3x⅜	P
59	Moreland(D)TA-420D	8-10	8925	224	224	42000	15200	9.75/20D	9.75/20	Her DHXB	6-5x6	707	4.0	530	176-1800	7-3¼x17	Y	BL 7341	4	Tim 79720W	2F	H	** 8.90	Tim 27050	T6IA	761	1050	a	TD	125½	11x3⅛x⅛	T
60	.....TA420CD	10	8625	224	224	42000	14900	9.75/20D	9.75/20	Cum HB	6-4⅞x6	672	17.0	420	125-1800	7-4½x16½	Y	BL 7341	4	Tim 79720W	2F	H	**-8.9	Tim 27050	T6IA	761	1354	A	TD	132½	11x3⅛x⅛	T
61	.....TA-420	10	8150	224	224	42000	14500	9.75/20D	9.75/20	Her HXB	6-5x6	707	5.0	460	148-2000	7-3¾x17	N	BL 7341	4	Tim 79720W	2F	H	** 7.89	Tim 27050TW	T6IA	761	1354	a	TD	132½	11x3⅛x⅛	T
62	Ster.(c)FBT130	2F 7-8	4105	162	193	26000	7325	8.25/20D	8.25/20	Wau 6BK	6-3¾x4¼	282	5.4	185	84-3200	7-2⅝x10¼	N	Own UC23	5	Own	SF	R	5.72-7.4	Tim 33000N	L4r1HV	400	944	a	TX	81	10x3¼x¼	L
63	..(b)FBT152 2C	2F 8-10	4880	177	207	32000	9475	9.00/20D	9.75/20	Wau 6-110	6-4x4¾	358	5.1	254	110-2800	7-2¾x12½	Y	OwnUC11	5	Own	SF	R	5.72-7.8	Tim 35000N	L4r1HV	484	1024	a	TX	91	10x3¼x¼	L
64	(b) HCS210	4R 12-18	10545	185	201	55000	14685	40x8D	10.50/24	Wau 6RB	6-5x5¾	677	5.3	470	145-2000	4-3½x11⅝	Y	Own UC9	4	Own	CD	R	10.0-11.7	Tim 27452N	Ws4r1A	792	1464	s	FX	95	9¼x3¼x½	L
65	White.....904	4R 3-7	2950	136	214	.....	7260	7.00/20D	7.50/20	Own 270	6-3⅛x4½	270	5.5	195	83-2800	7-2⅞x10.7	Y	Own 28B	4	Tim SW151	WF	R	6.40-7.0	Own 22D	L6IHV	596	.....	a	TX	60½	7x2⅞x⅜	T
66	918	4R 6-11	4865	142	208	.....	9300	9.00/20D	9.75/20	Own 318	6-3⅞x4½	318	5.5	234	94-2600	7-2⅞x10.7	Y	Own 41B	5	Tim SDD252	2F	R	7.0-8.4	Own 16D	L6IHV	718	.....	a	TX	60	8⅝x3¼	P
67	920	4R 7-12	7415	146	212	.....	12230	9.00 20D	10.50/22	Own 396	6-4x5¼	396	5.0	270	115-2600	7-2⅞x13¼	Y	Own 36B	5	Tim SDD352	2F	R	7.33-9.11	Own 24D	O6IA	798	.....	a	TD	72	8⅛x3⅛x⅜	TP
68	922	4R 8-13½	9215	146	212	.....	13575	9.75/20D	11.25/22	Own 460	6-4⅛x5¼	460	5.0	320	123-2400	7-2⅜x13¼	Y	Own 36B	5	Tim SDD452	2F	R	8.15-10.2	Own 6D	O6IA	1044	.....	a	TD	72	8⅛x3⅛x⅜	TP
69	942	4R 9-14½	9700	172	220	.....	15570	10.50/20D	10.50/24	Own 580	6-4½x5¾	580	4.6	385	130-2300	7-3x15½	Y	Own 10B	5	Tim SDD452	2F	R	8.15-10.2	Own 9D	O6IA	1044	.....	a	CI	84½	8⅛x3⅛x⅜	C
70	991	4R 10-16½	10800	149	168	.....	15825	10.50 24D	11.25 24	Own 580	6-4⅜x5¾	580	4.6	385	130-2300	7-3x15½	Y	Own 10B B	5	Tim SDD452	2F	R	8.15-10.2	Own 13D	O6IA	1044	.....	a	CI	84½	8⅛x3⅛x⅜	C
71	6308DD 352	4R 9-11	(6a)	193	208	.....	10000	9.00/20D	9.75/20	Own 7A	6-4⅛x5¾	434	4.9	285	107-2400	7-2¾x13¼	Y	Own 4B	5	TimSW320W	WF	R	6.00-9.25	Own 6D	Ws6IA	795	1192	a	CI	109½	8⅛x3⅛x⅜	C

For abbreviations see page 305

AMERICAN STOCK CLUTCHES

MAKE AND MODEL	Designed for	Rated Torque Capacity	Type	Facing Material	DIAMETER OF FACING		Number of Facings	No. of Driving Members	No. of Driven Members	Disk or Plate Material	Number of Springs	PRESSURES (Lbs)				Overall Outside Diameter of Clutch (Ins.)	Flexible Hub Mounting	Type of Throwout Bearing	DRIVE TAKEN BY		Means of Adjustment	Is Clutch Brake Provided	Bell Housing (S. A. E. Nos.)	Weight Complete (Lbs.)
					Outside (Ins.)	Inside (Ins.)						Total Spring Pressure	Total on Friction Face	Per Sq. In. of Friction Surface	To Disengage at Thrust Bearing				From Flywheel to Driving Members of Clutch	From Driven Members of Clutch to Clutch Shaft				
Borg & Beck.....9A-6	C,T,Tr	(a)	SP	W-M	9¼	5⅝	2	2	1	St	9	1215	1215	28.7	275	11 1/16	Sg	Opt	L.O.P.	Splines	No	No	5	16.5
Borg & Beck.....10A-7	C,T,Tr	(b)	SP	W-M	10	6	2	2	1	St	9	1395	1395	27.9	300	12 5/16	Sg	Opt	L.O.P.	Splines	No	No	5	19.35
Borg & Beck.....10A-8	C,T,Tr	(b)	SP	W-M	10	6	2	2	1	St	12	1620	1620	32.4	300	12⅜	Sg	Opt	L.O.P.	Splines	No	No	5	21.1
Borg & Beck.....11A-6	C,T,B,Tr	(c)	SP	.....	11	6⅛	2	2	1	St	12	1770	1770	27.0	365	13⅜	Sg	Opt	L.O.P.	Splines	No	No	4	28.5
Borg & Beck.12-Q & 12-QL	T,B,Tr	200	SP	Wo	11⅞	7¼	2	2	1	St	1	300	1590	23.0	350	12¼	Sg	Opt	Pins	Splines	Sc	No	3	33.25
Borg & Beck.....13-Q	T,B,Tr	260	SP	Wo	12⅞	7¼	2	2	1	St	1	300	1590	17.8	350	13 1/16	No	Opt	Pins	Splines	Sc	No	3	41.25
Borg & Beck.....14-Q	T,B,Tr	375	SP	Wo	13⅞	7¼	2	2	1	St	1	350	2117	19.3	400	14 1/16	No	Opt	Pins	Splines	Sc	No	2	57.0
Brown-Lipe.....12-SP	T,B,Tr	Var	SP	Wo	11⅞	7¼	2	1	1	NI	1	Var	Var	Var	Var	13⅜	Sg	BT	Keys	Splines	Shs	No	2,3,4	38.0
Brown-Lipe.....13-SP	T,B,Tr	Var	SP	Wo	12⅞	7¼	2	1	1	NI	1	Var	Var	Var	Var	14⅝	Sg	BT	Keys	Splines	Shs	No	1,2,3	45.0
Brown-Lipe.....14-SP	T,B,Tr	Var	SP	Wo	13¾	7⅝	2	1	1	NI	2	Var	Var	Var	Var	15½	Sg	AB	Keys	Splines	Th	Y	1,2,3	58.0
Brown-Lipe.....13-2P	T,B,Tr	Var	DP	Wo	13	7⅝	4	2	2	NI	2	Var	Var	Var	Var	15½	No	AB	KP	Splines	Th	Y	1,2,3	84.0
Brown-Lipe.....14-2P	T,B,Tr	Var	DP	Wo	13¾	7⅝	2	2	2	NI	2	Var	Var	Var	Var	16¼	No	AB	KP	Splines	Th	Y	1,2	95.0
Fuller.....1-SC-10	T,B,Tr	Var	MD	Wo	8.16	5.87	10	5	4	St	1	550	550	Var	550	.....	.....	BT	GT	Pins	No	No	1,2,3,4,5	83.0
Fuller.....1-SC-12	T,B,Tr	Var	MD	Wo	8.16	5.87	12	6	5	St	1	550	550	Var	550	.....	.....	BT	GT	Pins	No	No	1,2,3,4,5	87.0
Fuller.....1-SC-14	T,B,Tr	Var	MD	Wo	8.16	5.87	14	7	6	St	1	550	550	Var	550	.....	.....	BT	GT	Pins	No	No	1,2,3,4,5	89.0
Fuller.....1-SC-16	T,B,Tr	Var	MD	Wo	8.16	5.87	16	8	7	St	1	550	550	Var	550	.....	.....	BT	GT	Pins	No	No	1,2,3,4,5	93.0
Fuller.....1-SC-10-10	T,B	.....	MD	Wo	9.87	6.75	10	5	4	CI	1	700	700	1.71	700	.....	.....	BT	GT	Pins	No	No	1,2,3	83.0
Fuller.....1-SC-10-12	T,B,Tr	.....	MD	Wo	9.87	6.75	12	6	5	CI	1	725	725	1.48	725	.....	.....	BT	GT	Pins	No	No	1,2,3	90.0
Hele-Shaw.....5	T,B,	210	MO	No	7	6	....	15	14	BS	1	250	....	62.0	250	10½	....	AB	Pins	Pins	Th	Y	.....	58.0
Hele-Shaw.....6	T,B	300	MO	No	9	7	....	12	11	BS	1	300	....	56.0	300	12¾	....	AB	Pins	Pins	Th	Y	.....	82.0
Hele-Shaw.....7	T,B	370	MO	No	9	7	....	15	14	BS	1	300	....	56.0	300	12¾	....	AB	Pins	Pins	Th	Y	.....	86.0
Hele-Shaw.....8	.....	420	MO	No	11½	9½	....	12	11	BS	1	400	....	38.0	400	15½	....	AB	Pins	Pins	Th	Y	.....	110.0
Hele-Shaw.....10	T,B	575	MO	No	11½	9½	....	16	15	BS	1	400	....	38.0	400	15½	....	AB	Pins	Pins	Th	Y	.....	150.0
Hele-Shaw.....150	T,B	1000	MO	No	17	15	....	17	16	BS	1	600	....	54.0	600	21½	....	AB	Pins	Pins	Th	Y	.....	300.0
Jones.....29	C,T,B	300–450	DP	W-M	8.87	5.25	4	2	2	St	24	1500	Var	Var	300 m	11¼	Sr	BT	Cov	Splines	No	No	.....	28.0
Jones.....33-A	C,T,B,Tr	250–450	DP	W-M	9.87	6¾	4	2	2	St	24	Var	Var	Var	Var	11½	Sr	BT	Cov	Splines	No	No	4+	33.0
Jones.....35	.....	180–250	SP	W-M	8.87	6.37	2	1	1	St	12	Var	Var	Var	280 m	11¼	Sr	BT	Cov	Splines	No	No	.....	17.0
Jones.....30	C,T,Tr	150–285	SD	W-M	9.87	6.37	2	1	1	St	24	1600 m	Var	Var	333 m	12	Sr	BT	Cov	Splines	No	No	2,3,4	24.0
Jones.....37	C,T,B,Tr	360 m	SD	W-M	10.87	6.37	2	1	1	St	24	Var	Var	Var	285 m	12¾	Sr	....	Cov	Splines	No	No	2,3,4,5	29.0
Jones.....1400	T,B	540 m	SP	W-M	13.87	7.50	2	1	1	St	24	2000 m	Var	Var	348 m	15¾	Sr	BT	Cov	Splines	No	No	1,2	72.0
Jones.....1300	T,B	350–509	SP	W-M	12.87	7.00	2	1	1	St	24	2000 m	Var	Var	348 m	14½	Sr	BT	Cov	Splines	No	No	1,2,3	61.0
Jones.....1300-D	T,B	600–900	DP	W-M	12.87	7.00	4	1	1	St	24	2000 m	Var	Var	348 m	14¾	Sr	BT	Cov	Splines	No	No	1,2,3	92.0
Jones.....1400-D	T,B	1100 m	DM	W-M	13.87	7.50	4	2	2	St	24	2000 m	Var	Var	348 m	15½	Sr	BT	Cov	Splines	No	No	1,2	97.0
Jones.....45	C,T,B,Tr	250–335	SD	W-M	11.87	9.37	2	1	1	St	24	Var	Var	Var	350 m	13.37	Sr	BT	Cov	Splines	No	No	2, 3, 4	38.0
Lipe, W.C.....Z-34-S	T,B,Tr	200	SP	W-M	11⅞	7¼	2	....	1	SI	1	310	1612	23.9	360 m	13⅝	Sg	Opt	Lugs	Splines	Shs	No	4+	38.4
Lipe, W.C.....Z-30-S	T,B,Tr	265	SP	Wo	12⅞	7¼	2	....	1	SI	1	310	1922	21.5	360 m	14⅝	Sg	Opt	Lugs	Splines	Shs	No	3+	47.7
Lipe, W.C.....Z-32-S	T,B,Tr	.....	SP	Wo	13⅞	7¼	2	....	1	SI	1	365	1898	17.3	390 m	15⅝	Sg	Opt	Lugs	Splines	Shs	No	3+	60.0
Lipe, W.C.....Z-31-S	T,B,Tr	425	SP	Wo	13⅞	7¼	2	....	1	SI	1	420	2840	26.7	450 m	15⅝	Sg	Opt	Lugs	Splines	Shs	....	3+	62.0
Lipe, W.C.....Z-33-S	T,B,Tr	515	SP	Wo	15	8	2	....	1	SI	1	485	3150	25.0	500	16⅜	Dd	BA	Lugs	Splines	Shs	No	2+	68.0
Lipe, W.C.....Z-37-S	T,B,Tr	620	DP	Wo	12⅞	7¼	4	1	2	SI	1	485	2420	26.9	500	15⅝	No	BA	Lugs	Splines	Shs	No	3+	83.0
Long.....7½-CB	Cars	60	SP	W-M	7½	5	2	2	1	St	6	Var	Var	Var	Var	8.2	Sg	BA	CS	Splines	No	No	.....	10.5
Long.....8½-CB	C,T	125	SP	W-M	8½	6	2	2	1	St	6	Var	Var	Var	Var	9 1/16	Sg	BA	CS	Splines	No	No	6+	10.75
Long.....9-CF	C,T	(g)	SP	W-M	9	5¾	2	2	1	St	6	Var	Var	Var	Var	11	Sg	BA	CS	Splines	No	No	5+	14.50
Long.....9½-CF	C,T	(h)	SP	W-M	9½	6	2	2	1	St	6	Var	Var	Var	Var	11½	Sg	BA	CS	Splines	No	No	5+	15.75
Long.....10-CF	C,T,B,Tr	(d)	SP	W-M	10	6	2	2	1	St	9	Var	Var	Var	Var	12	Sg	BA	CS	Splines	No	No	5+	20.50
Long.....11-CF	C,T,B,Tr	(e)	SP	W-M	11	6½	2	2	1	St	9	Var	Var	Var	Var	13	Sg	BA	CS	Splines	No	No	4+	23.75
Long.....12-CB	C,T,B,Tr	(f)	SP	W-M	12	7	2	2	1	St	12	Var	Var	Var	Var	14⅝	Sg	BA	CS	Splines	No	No	3+	37.75
Long.....29-A	T,Tr	225	DP	W-M	9¾	6¼	4	3	2	St	12	Var	Var	Var	Var	11¼	No	BA	Lugs	Splines	No	No	4+	33.00
Long.....31-A	T,Tr	300	DP	W-M	11	6½	4	3	2	St	12	Var	Var	Var	Var	13	No	BA	Lugs	Splines	No	No	4+	44.00
Long.....34-BD	T,Tr	550	DP	W-M	13¾	7¼	4	3	2	St	18	Var	Var	Var	Var	16¼	No	BA	Lugs	Splines	No	No	2+	99.25
Long.....13-6	T,B,Tr	350	SP	W-M	13¾	7¼	2	2	1	St	18	Var	Var	Var	Var	15½	Sg	BA	CS	Splines	Sc	No	2+	63.50
Long.....15-4	T,B,Tr	500	SP	W-M	15½	9	2	2	1	St	18	Var	Var	Var	Var	17¼	Sg	BA	CS	Splines	Sc	No	1+	75.50
Long.....17	T,B,Tr	600	SP	W-M	16¾	10	2	2	1	St	30	Var	Var	Var	Var	19⅛	No	BA	CS	Splines	Sc	No	1+	96.00
Rockford.....14-TT	T,B,Tr	635	SP	W-M	13⅞	8	2	1	1	St	12	2100	2100	21.8	420	15½	Sg	Opt	L.O.P.	Splines	Sc	No	1, 2, 3	.....
Rockford.....10-TT	C,T,B,Tr	225	SP	W-M	9⅛	6⅛	2	1	1	St	12	1500	1500	32.0	350	12	No	Opt	L.O.P.	Splines	Sc	No	2, 3, 4, 5	.....
Rockford.....9-TT	T,B	210	SP	W-M	9	5¾	2	1	1	St	12	1350	1350	36.0	295	11 1/16	No	Opt	L.O.P.	Splines	Sc	No	2, 3, 4, 5	.....
Rockford.....9-RR	T	173	SP	W-M	8⅞	5¾	2	1	1	St	6	1110	1110	30.9	265	10 1/16	No	Opt	L.O.P.	Splines	SCL	No	2, 3, 4, 5	.....
Rockford.....18-TT	T,B,Tr	1960	DP	Wo	17⅝	9⅝	4	2	2	St	16	3360	2360	19.5	570	21	No	AB	Studs	Splines	Sc	No	0, 00	.....
Rockford.....12-TT	T,B,Tr	540	SP	W-M	11⅞	6⅞	2	1	1	St	15	2175	2175	35.0	435	14⅝	Sg	Opt	.....	Splines	Sc	No	2, 3, 4	.....
Rockford.....11-TT	C,T,B,Tr	320	SP	W-M	10⅞	6⅞	2	1	1	St	12	1740	1740	31.8	435	13	Sg	Opt	L.O.P.	Splines	Sc	No	2, 3, 4	.....
Rockford.....14-II	T,B,Tr	590	SP	W-M	13⅞	8	2	1	1	St	12	2460	2460	24.3	575	15 1/16	Sg	Opt	Studs	Splines	SCL	No	1, 2, 3	.....
Rockford.....12-II	T,B,Tr	347	SP	W-M	11⅞	6⅞	2	1	1	St	9	1665	1665	22.6	420	13 1/16	Sg	Opt	Studs	Splines	SCL	No	2, 3, 4	.....
Rockford.....11-II	T,B,Tr	262	SP	W-M	10⅞	6⅞	2	1	1	St	9	1395	1395	25.0	350	12 1/16	Sg	Opt	Studs	Splines	SCL	No	2, 3, 4	.....
Rockford.....10-II	T,B,Tr	170	SP	W-M	9⅞	6⅝	2	1	1	St	6	990	990	23.5	235	11 1/16	Sg	Opt	Studs	Splines	SCL	No	2, 3, 4, 5	.....
Rockford.....9-II	T,B	145	SP	W-M	8⅞	5¾	2	1	1	St	6	930	930	25.9	221	10 1/16	Sg	Opt	Studs	Splines	SCL	No	2, 3, 4, 5	.....
Rockford.....8-II	C,T	98	SP	W-M	7⅞	5⅛	2	1	1	St	6	720	720	27.6	213	9 1/16	Sg	Opt	Studs	Splines	SCL	No	4, 5	.....
Rockford.....10-RR	T,B,Tr	.....	SP	W-M	9⅞	6⅝	2	1	1	.....	.....	1170	1170	27.7	285	11 1/16	Sg	Opt	L.O.P.	Splines	SCL	No	2, 3, 4, 5	.....
Rockford.....15-Q	T,B,Tr	690	SP	Wo	15	8	2	1	1	St	9	2880	2880	22.8	690	17¼	No	AB	L.O.P.	Splines	.....	No	1, 2, 3	.....

(a)—150 lbs. on Pass. Cars, 120 on Trucks and Tractors
AB—Annular Ball
(b)—185 lbs. on Pass. Cars, 150 on Trucks and Tractors
B—Buses
BA—Ball Thrust or Annular Ball
BS—Bronze and Steel
BT—Ball Thrust
(c)—250 lbs. on Pass. Cars, 180 lbs. on Trucks, Buses or Tractors
C—Cars
CI—Cast Iron
Cov—Cover Bolts
CS—Cap Screws
(d)—Cars 225, Trucks 160, buses and Tractors 130

CLUTCH ABBREVIATIONS:

Dd—Duplex Damper
DM—Double Plate, Multiple Disk, Dry
DP—Double Plate, Dry
(e)—Cars 275, Trucks 185, Buses and Tractors 170
f)—Cars 375, Trucks 250, Buses and Tractors 200
(g)—Car 165, Truck 135
GT—Gear Teeth
(h)—Car 185, Truck 150
KP—Keys and Pins
L.O.P.—Lugs on Pressure Plate
m—Maximum
MD—Multiple Disk, Dry
MO—Multiple Disk in Oil
NI—Nickel Iron
No—No or None
Opt—Optional
Sc—Screws on Cover Plate
SCL—Screws on Clutch Levers
SD—Single and Double Plate, Dry
Sg—Springs
Shs—Shims
SI—Special Iron
SP—Single Plate—Dry
Sr—Springs and Rubber
St—Steel
T—Trucks
Th—Threaded Ring
Tr—Tractors
Var—Varies
W-M—Woven or Molded
Wo—Woven
Y—Yes

AMERICAN TRACTORS—WHEEL TYPE

MAKE AND MODEL	Wheelbase (Ins.)	OVERALL DIMENSIONS (INS.) Length	Width	Height	Net Weight (Lbs.)	Minimum Turning Radius (Ft.)	Ground Clearance (Ins.)	HP. Rating Belt	Drawbar	Power Take-Off	No. of Forward Speeds	PLOWING SPEED—M.P.H. First	Second	Third	Fourth	Reverse	WHEELS Steel Diam. and Face Front (Ins.)	Rear (Ins.)	Tire Size Front (Ins.)	Rear (Ins.)	ENGINE No. of Cylinders Bore and Stroke (Ins.)	Valve Arrangement	R.P.M. at Normal *Operating Speeds	Maximum Brake HP at Specified R.P.M.	Maximum Torque (Lb. Ft.) at Specified R.P.M.	Cu. In. Displacement	Fuel Recommended	Ignition Make	Carburetor Make	Oiling System Type	CLUTCH Make and Type	Drive Type to Traction Members	No. of Drive Wheels	BELT PULLEY Diameter (Ins.)	Face (Ins.)	Normal R.P.M.	Steering Type
Allis-Chalmers.....WC	87	136	....	66	(a)	8	28	NR	NR	Y	4	2½	3½	4¾	9	2	24x4	40x6	5.50/16	11.25/24	4-4x4	I	1300	21–1300	101–800	201	GKD	FM	Zen	DC	Roc-SP	SG	2	9	6¼	1170	SA
Allis-Chalmers.....U	76½	121¾	66	65	(b)	8	11	NR	NR	Y	4	2½	3¼	4½	10¾	2⅞	28x6	45x11⅛	6.00/16	11.25/28	4-4½x5	I	1200	36–1200	172–720	318	GKD	FM	Zen	DC	Roc-SP	SG	2	10	7½	1095	FK
Allis-Chalmers.....UC	87¼	125⅛	....	67⅝	(c)	9	30	NR	NR	Y	4	2½	3½	5	10	2¾	24x5	42x2	6.00/16	11.25/24	4-4½x5	I	1200	36–1200	172–720	318	GKD	FM	Zen	DC	Roc-SP	SG	2	10	7½	1095	SA
Allis-Chalmers.....A	90⅝	140	63	66	7175	....	11	NR	NR	Y	4	2⅝	3½	4½	9½	3	32x6	48x12½	7.50/18	12.75/28	4-4⅝x6½	I	1000	44–1000	255–600	461	GKD	FM	Zen	DC	Roc-SP	SG	2	13	8½	948	FK
Beeman.....Hy-Wheel	....	106	38	65	700	....	16½	4	2½	....	....	¾	2½	....	....	....	34x4	....	....	....	1-3½x4½	L	....	....	....	....	G	....	Kin	....	-Co	....	..	4½	3¾	....	....
Beeman.....Jr.	....	71½	27½	39	360	2¾	14	1	½	....	....	¾	2½	....	....	....	30x3	....	....	....	1-2½x2½	....	....	....	....	....	G	....	....	Own-SP	....	....	....	....	....	....	....
Beeman.....	....	86	17¼	40	550	....	....	4	2	....	....	¾	3½	....	....	....	25x3¼	....	....	....	1-3½x4½	L	....	....	....	....	G	....	Kin	CS	Cone	....	..	4½	3¾	1500	....
Eagle.....6-B	80	130	78	60	2900	7¾	28	25	15	Y	4	1.8	3.5	6.9	13	2	24x4	40x6	5.50/16	11.25/24	6-3½x4½	L	1575	....	....	205.0	G	ES	Zen	DC	Long-SP	SG	2	8½	7	1180	SA
Eagle.....6-A	80	130	70	60	4800	15	12	37	22	Y	3	2.5	3.33	4.5	....	2.5	30	48	7.50/18	12.75/38	6-4x4¾	L	1416	55–1416	230–900	358.0	G	ES	Zen	DC	TD-DP	SG	2	16	8	625	FK
Fordson.....Agricultural	63	104	63	55	3000	10¾	9	20	11	Y	3	2.0	3.09	4.3	....	1.65	30x6	42x12	6.0	....	4-4½x5	L	1100	27–1100	160–700	267.0	GK	Bos	KZ	CS	Own-Mo	WG	2	9½	6½	1100	FK
Fordson.....Land Utility	63	104	62	55	3000	10¾	11	20	11	Y	3	2.19	3.09	7.75	....	2.96	....	....	6.00/19	11.25/24	4-4½x5	L	1100	27–1100	160–700	267.0	GK	Bos	KZ	CS	Own-Mo	WG	2	9½	6½	1100	FK
Fordson.....Industrial	63	97	64	50.3	3363	11½	7.3	....	....	N	3	2.46	3.47	10.97	....	3.33	....	....	23/5	36/6	4-4½x5	L	1100	27–1100	160–700	267.0	G	Bos	Zen	CS	Own-Mo	WG	2	....	....	1100	FK
Huber.....B	84¼	127½	73	54⅝	3000	7⅜	26½	....	....	Y	3	2.2	3.2	4.3	8.2	1.8	25x4½	50x8	5.50/16	9.00/36	4-3½x4½	L	....	50–2500	132–1300	205.0	G	Bos	Zen	DC	Roc-SP	IG	2	10	6	1000	FK
Huber.Modern Farmer-KC	85	130	82½	60½	3900	9¼	30	....	....	Y	3	2.4	3.5	4.5	9.0	1.8	25x4½	42x10	6.00/16	11.25/24	4-4⅝x5½	I	1200	55–1600	210–1000	353.0	GK	Bos	Zen	DC	TD-SP	SG	2	14	6⅜	705	FK
Huber.....HK	83¾	137½	73	61	6000	15	15	36	20	Y	3	2.3	3.0	5.0	....	1.8	34x6	50x12	7.50/18	12.75/28	4-5½x6½	I	1200	66–1200	325–900	516.0	GKD	Bos	Zen	DC	TD-SP	SG	2	17	8½	616	FK
Huber Super 4.....40-62	95	160	88	62	9500	14	15	62	40	Y	2	2.2	3.3	5.5	....	1.7	34x6	56x14	9.50/18	13.50/32	4-5½x6½	I	1100	70–1200	350–900	618.0	GK	Bos	Zen	DC	TD-DP	SG	2	15	9⅝	668	FK
I.H.C.-Farmall[1].....F-12	76	125¼	74¼	....	2700	7	25	(d)	(e)	Y	3	2.25	3.0	3.75	....	2.25	22½x4	54x6	5.00/15	9.00/40°	4-3x4	I	1400	18–1400	74–1000	113.1	GKD	Own	Own	DC	Roc-SP	SG	2	12⅜	6¼	800	SA
I.H.C.-Farmall[1].....F-20	85	140	95½	68¼	3950	8	....	23.8	15.98	Y	4	2.25	2.75	3.25	3.75	2.75	25x4	42x12	6.00/16	12.75/28°	4-3¾x5	I	1200	29–1200	.....	220.9	KD	Own	Zen	CS	Own-SP	SG	2	15¼	6½	2610	SA
I.H.C.-Farmall[1].....F-30	94	147	97½	70½	5300	8½	....	30.29	20.27	Y	4	2.00	2.75	3.25	3.75	2.50	25x4	42x12	6.00/16	12.75/28°	4-4¼x5	I	1150	38–1150	185–650	283.7	GKD	Own	Zen	CS	Own-SP	SG	2	14⅝	7	682	SA
I.H.C.-International[1]..I-12	60	99	54¾	51½	3200	9¼	....	16.07	....	Y	3	2.50	6.00	10.38	....	3.50	....	....	6.00/9	9.00/24	4-3x4	I	2000	19¼–1700	74–1000	113.1	G	Own	Own	DC	Own-SP	SG	..	13¼	6¼	1068	FK
I.H.C.-International[1].....20	78	123	60	....	7150	15	....	....	....	Y	4	2.25	4.00	7.0	10.5	3.00	....	....	5.50/20°	40/8°	4-4¼x5	I	1000	30–1000	.....	283.7	G	Own	.....	CS	Own-SP	SG	2	15¼	7	645	FK
I.H.C.-International[1]..I-30	72½	121	85	63	7475	13½	....	31.31	....	Y	4	2.40	4.00	7.20	12.2	3.10	....	....	5.50/20°	40/8°	4-4¼x5	I	1150	39–1150	187–850	283.7	G	Own	.....	CS	Own-SP	SG	2	15¼	7	675	FK
I.H.C.-International[1].ID-40	85	141½	91½	....	10630	17	6½	44.04	....	Y	3	2.28	3.39	6.62	....	2.06	....	....	32/6°	42/9°	4-4¾x6½	I	1100	51–1100	269.475	460.8	O	Own	Own	DC	Own-SP	SG	2	16¾	9	588	FK
I.H.C.-International[1]..I-40	85	139	91½	77½	9680	17	6½	44.8	....	Y	3	2.10	3.13	6.71	....	1.90	....	....	32/6°	42/9°	6-3¾x4½	I	1250	52–1750	175–900	298.2	GKD	Own	.....	DC	Own-SP	SG	2	16¾	9	.....	FK
I.H.C.-McCor.-Deer.[1]O-12	60	104½	54¾	....	3200	9¼	....	16.07	....	Y	3	3.50	6.0	10.37	....	3.5	....	....	6.00/9.00	9.00/24	4-3x4	I	2000	19¼–1700	74–1000	113.1	G	Own	Own	DC	Roc-SP	SG	2	13¼	6¼	1068	FK
I.H.C.-McCor.-Deer.[1]W-12	60	103	50	....	2900	9	....	(f)	(g)	Y	3	2.12	2.75	3.62	....	2.12	22½x3½	42x8	6.00/16	11.25/24	4-3x4	I	1700	19¼–1700	74–1000	113.1	GKD	Own	Own	DC	Roc-SP	SG	2	13¼	6¼	787	FK
I.H.C.-McCor.-Deer.[1]10-20	78	123	60	....	4265	15	....	21.6	13.5	Y	3	2.25	3.00	4.25	....	2.62	30x4½	42x12	.....	.....	4-4¼x5	I	1000	25.3–1000	.....	283.7	GKD	Own	Zen	CS	Own-SP	SG	2	15¼	7	645	FK
I.H.C.-McCor.-Deer.[1]W-30	72½	121¾	66¼	....	4820	13½	....	31.31	19.69	Y	4	2.00	2.62	3.25	4.00	2.25	30x4½	42x12	.....	.....	4-4¼x5	I	1150	38–1150	185–650	283.7	GKD	Own	Zen	CS	Own-SP	SG	2	15¼	7	675	FK
I.H.C.-McCor.-Deer.[1]W-40	85	141½	65¾	85	6630	17	10½	44.8	28.34	Y	3	2.40	3.10	3.60	....	2.20	34x6	50x12	.....	.....	6-3¾x4½	I	1750	52–1750	175–900	298.2	GKD	Own	Zen	DC	Own-SP	SG	2	16¾	9	845	FK
IHC-McCor.-Deer.[1]WD-40	85	141½	65¾	85	7550	17	10½	44.04	27.99	Y	..	2.62	3.37	3.87	....	2.37	34x6	50x12	.....	.....	4-4¾x6½	I	1100	51–1100	269.475	460.8	O	Own	Own	DC	Own-SP	SG	2	16¾	9	588	FK
John Deere.....A	87¼	130	86	82	3630	8	10½	....	....	Y	..	....	3.0	....	....	....	24x4	50x6	5.50/16*	9.00/36*	2-5½x6½	I	975	.....	.....	309.0	KD	Own	Sch	DC	Own-MD	SG	2	12¾	7⅜	975	FK
John Deere.....B	80	120½	85	74	2704	8	10¾	....	....	Y	..	....	3.0	....	....	....	22x3¼	48x5¼	5.00/15*	7.50/36*	2-4¼x5¼	I	1150	.....	.....	149.0	KD	Own	Sch	DC	Own-MD	SG	..	10⅝	6	1150	FK
John Deere.....D	70	130	66½	84	5021	13½	10	....	....	Y	..	....	3.25	....	....	....	28x6	46x11⅛	7.50/18*	12.75/28*	2-6¾x7	I	900	.....	.....	501.0	KD	Spl	Sch	DC	Own-MD	Cha	2	13¼	8½	900	FK
Mass.-Harr.-PacemakerPA	78	122¼	56	53	3700	11½	10	....	....	Y*	4	2.4	3.3	4.1	8.5	3.0	28x5	44x10	6.00/16	12.75/24*	4-3⅞x5¼	I	1200	.....	.....	247.7	GKD	Bos	Kin	DC	TD-SP	SG	2	12	6¼	831	FK
Mass.-Harr.....GP	82½	117⅝	84*	56¼	....	3 in.	30	22	15	Y*	3	2.2	3.2	4.0	....	2.5	38x8	38x8	9.00/24	9.00/24	4-4x4½	I	1200	.....	.....	.....	GKD	Bos	Kin	DC	TD-SP	SG	..	12	6½	802	FK
Mass.-Harr.....25	84	135½	65½	57	5083	13	10½	41	26	Y*	3	2.5	3.25	4.0	....	2.5	30x6	48x12	7.50/18	13.50/28°	4-4⅝x5⅝	I	1200	.....	.....	345.8	GKD	Bos	Kin	DC	TD-SP	SG	2	19	7⅛	525	FK
Mass.-Harr.-ChallengerCH	91¼	129¼	88*	57⅝	3860	....	22½	....	....	Y*	4	2.4	3.3	4.1	8.5	3.0	24x4½	52x8	5.50/16	11.25/36*	4-3⅞x5¼	I	1200	.....	.....	247.7	GKD	Bos	Kin	DC	TD-SP	SG	2	12	6¼	831	SA
Minneapolis-Moline....JT	76½	115½	79	....	3600	7	22¾	22	14	Y	5	2.20	2.65	3.13	4.57	1.20	25x4½	50x8	5.50/16	9.00/36	4-3⅝x4½	(k)	1275	30–1275	.....	196.0	GKD	FM	Zen	DC	TD-SP	SG	2	15⅝	6½	730	FK
Minneapolis-Moline..KTA	78¼	131	59	....	4450	8	21	30	19	Y	3	2.10	3.10	4.10	....	1.8	28x5	42x10	6.00/16	11.25/24	4-4¼x5	I	1150	41–1150	.....	283.5	GKD	FM	Sch	DC	TD-SP	SG	2	14	7	820	FK
Minneapolis-Moline..MTA	90½	143	90	....	4774	8½	30	29	19	Y	3	2.10	3.10	4.10	....	1.8	28x5	42x10	6.00/16	9.00/36	4-4¼x5	I	1150	41–1150	.....	283.5	GKD	FM	Sch	DC	TD-SP	SG	2	14	7	820	FK
Minneapolis-Moline..FTA	84	137	66	....	6200	13⅝	9¾	41	27	Y	3	2.36	3.17	4.45	....	1.74	34x5¾	50x12	7.50/18	12.75/32	4-4⅝x6	I	1075	54–1075	.....	403.2	GKD	Bos	Sch	DC	TD-SP	SG	2	16	7½	650	FK
Minneapolis-Moline....AT	97	153	88	74	8380	30	13½	44	27	N	2	2.0	2.9	....	....	1.87	36x8½	60x20	.....	.....	4-5½x6¾	I	900	61–900	.....	641.4	GKD	Bos	Sch	DC	TD-SP	SG	2	21	8½	466	FK
Oliver.....28-44	80	125¾	65	59½	5565	14	10⅜	44.29	28.44	Y*	3	2.23	3.30	4.33	....	2.63	29x5	46x12	7.50/18	13.50/28°	4-4¾x6½	I	1125	49–1132	260–900	443.0	GK	Bos	Ens	DC	B&B-SP	SG	2	16¾	8¼	596	FK
Oliver.....18-28	72½	112	61	53½	4125	12½	9¾	28.3	18.99	Y*	3	2.6	3.2	4.15	....	2.9	28x5	44x10	6.00/16	12.75/24°	4-4½x5¼	I	1190	29.7–1148	161–900	281.0	GK	Bos	Ens	DC	B&B-SP	SG	2	14½	7¼	726	FK
Oliver.....Std. Row Crop	93½	144	80	61½	4375	8½	17½	27.11	16.10	Y*	3	2.6	3.2	4.15	....	2.9	24x4½	59½x¾	6.00/16	11.25/42	4-4½x5¼	I	1150	29.7–1148	161–900	281.0	GK	Bos	Ens	DC	B&B-SP	SG	2	14½	7¼	700	SA
Oliver....Row Crop 70-HC	90½	133¾	80½	58	3300	8	17¼	25.13	16.94	Y	4	2.44	3.32	4.33	5.88	2.44	24x4½	55x5	5.50/16	9.00/40°	6-3½x4⅜	I	1500	26.5–1500	105–1200	201.3	G	Bos	Zen	DC	B&B-SP	SG	2	12¾*	7¼*	778	SA
Oliver....Standard 70-HC	72	120½	61½	51½	2990	11	10¾	....	....	Y	4	2.44	3.32	4.33	5.88	2.44	27x4½	42x10	5.50/16°	11.25/24°	6-3½x4⅜	I	1500	.....	105–1200	201.3	G	Bos	Zen	DC	B&B-SP	SG	2	12¾	7¼	778	FK
Oliver....Row Crop 70-KD	90½	33⅜	80½	58	3320	8	17¼	24.49	16.53	Y*	4	2.44	3.32	4.33	5.88	2.44	24x4½	55x⅜	5.50/16	9.00/40°	6-3½x4⅜	I	....	26–1500	105–1200	201.3	D	Bos	Zen	DC	B&B-SP	SG	2	12¾*	7¼*	778	SA
Oliver....Standard 70-KD	72	120½	61½	51½	3010	11	10¾	....	....	Y	4	2.44	3.32	4.33	5.88	2.44	27x4½	42x10	5.50/16	11.25/24°	6-3½x4⅜	I	1500	.....	105–1200	201.3	KD	Bos	Zen	DC	B&B-SP	SG	2	12¾	7¼	778	FK
Rock Island.....H-22	....	138	70	65	5000	....	10	40	22	Y*	2	2.5	3.7	.....	.....	2.0	30x6	48x12	7.50/18	12.75/28	4-4¾x6¼	I	1100	.....	.....	.....	GKD	Bos	Str	DC	TD-DP	SG	..	18	7½	610	FK
Rock Island.....H-5	....	124½	70	62	4500	....	9	25	15	Y*	2	2.5	3.7	.....	.....	1.75	28x5	46x11	7.50/18	12.75/28	4-4½x5¼	I	1250	.....	.....	.....	GKD	Bos	Str	DC	TD-DP	SG	2	16	6½	690	FK
Rock Island.....RI-1	87	128	....	....	....	....	27	....	....	Y*	4	2.16	3.13	4.12	12+	2.25	24x4	50x6	5.00/15	9.00/36	4-3½x4½	L	1400	.....	.....	.....	GK	FM	Zen	DC	TD-DP	SG	..	....	....	....	....
Silver King.....4 Wheel	60	97	....	....	2100	9½	16	....	....	Y	4	2.25	3.35	5.50	25.0	1.50	24	38	5.50/16	9.00/24	4-3x4	L	1400	.....	.....	.....	G	Bos	Zen	DC	B&B-SP	SG	2	6*	6	1400	FK
Silver King.....3 Wheel	....	128	....	....	2400	7	25	....	....	Y	4	2.25	3.35	6.50	25.0	1.50	26	38	6.00/16	9.00/24	4-3½x4	L	1400	.....	.....	.....	G	Bos	Zen	DC	B&B-SP	SG	2	6*	6	1400	FK

TRACK-LAYING TYPE

MAKE AND MODEL	Track Length on Ground (Ins.)	OVERALL DIMENSIONS (Ins.) Length	Width	Height	Net Weight (Lbs.)	Minimum Turning Radius (Ft.)	Ground Clearance (Ins.)	HP. RATING Belt	Drawbar	Power Take-off	No. of Forward Speeds	PLOWING SPEED M.P.H. First	Second	Third	Fourth	Reverse	TRACK Width	Gage—Center to Center	ENGINE Make	No. of Cylinders	Bore and Stroke	Valve Arrangement	R.P.M. at Normal Operating Speeds	Maximum Brake HP. at Specified R.P.M.	Maximum Torque Lb. Ft. at R.P.M.	Cu. In. Displacement	Fuel Recommended	Ignition Make	Carburetor Make	Air Cleaner Make	Oiling System Type	CLUTCH Make and Type	Tranamission Make	Drive Type to Traction Members	No. of Drive Wheels	BELT PULLEY Diameter (Ins.)	Face (Ins.)	Normal R.P.M.	Steering Type
Allis-Chalmers.....M	56 7/16	101 5/8	57 1/4	56 13/32	6500	6	8 7/8	NR	NR	Y	5	2.23	3.20	4.15	5.82[3]	2.55	12	40	Own	4-4½x5	I	1200	35.8–1200	172–720	318.0	G	FM	Zen	Vor	DC	Roc-SP	Own	SG	2S	10(n)	8¼	960	DM
Allis-Chalmers.....MK	56 7/16	101 5/8	67 1/4	56	6790	6½	8 7/8	NR	NR	Y	5	2.23	3.20	4.15	5.82[3]	2.55	(h)	(m)	Own	4-4½x5	I	1200	35.8–1200	172–720	318.0	G	FM	Zen	Vor	DC	Roc-SP	Own	SG	2S	10(n)	8¼	960	DM
Allis-Chalmers.....K	67	119 9/16	65 7/8	64	10668	7	11	NR	NR	Y	4	1.72	2.59	3.26	5.92	2.10	15	48	Own	4-5x6½	I	1050	68–1050	340–675	510.0	G	FM	Zen	Vor	DC	Own-SP	Own	SG	...	10(n)	8¼	1050	DM
Allis-Chalmers.....L	85 7/16	153¼	93	81¼	21550	9	14⅜	NR	NR	Y	6	1.48	1.94	2.68	3.50[4]	(p)	16	68	Own	6-5¼x6½	I	1050	102–1050	550–700	844.0	G	FM	Zen	Vor	DC	Own-DP	Own	SG	2S	18(q)	15	580(r)	DM
Allis-Chalmers.....K-O	67	119 9/16	65 7/8	64	11012	7	11	NR	NR]	Y	4	1.72	2.59	3.26	5.92	2.10	15	48	Own	4-5¼x6½	I	1050	70–1050	370–750	510.0	O	Scin	.....	Don	DC	Own-SP	Own	SG	2S	10(n)	8¼	1050	DM
Allis-Chalmers.....WK	67	119 9/16	65 7/8	64	11100	7	11	NR	NR	Y	4	1.72	2.59	3.26	5.92	2.10	15	48	Own	4-5¼x6½	I	1050	70–1050	370–750	510.0	O	Scin	.....	Don	DC	Own-SP	Own	SG	2S	10(n)	8¼	1050	DM
Allis-Chalmers.....WKO	67	119 9/16	80 7/8	64	11425	8	11	NR	NR]	Y	4	1.72	2.59	3.26	5.92	2.10	28	63	Own	4-5¼x6½	I	1050	70–1050	370–750	510.0	O	Scin	.....	Don	DC	Own-SP	Own	SG	2S	10(n)	8¼	1050	DM
Allis-Chalmers.....LO	85 7/16	153¼	93	81¼	23000	9	14⅜	NR	NR	Y	6	1.48	1.94	2.68	3.50	(p)	20	68	Own	6-5¼x6½	I	1050	102–1050	560–750	844.0	O	Mal	.....	Don	DC	Own-DP	Own	SG	2S	18(q)	15	580(r)	DM
Bates.....G	58	105	63½	58	5500	8	12	25	35	N	2	2½	3½	.....	.....	.....	12	36	Le R	4-4½x6	IHS	1000	.....	.....	382.0	GK	Bos	Kin	Vor	DC	B&B-SP	Own	SG	...	12	8½	820	....
Bates.....35	70	120	72	70	10750	8	12	53	43	Y	3	1.75	2.75	3.75	.....	1.75	12	53¼	Wau	6-4¼x4¾	L	1500	.....	.....	404.0	G	Bos	Sch	Vor	DC	TD-SP	Own	SG	...	12	8½	920	....
Bates.....Diesel 40	70	120	72	70	11000	8	12	50	42	Y	3	1.75	2.75	3.75	.....	1.75	14	53¼	W-H	4-4½x5¼	I	1500	.....	.....	334.0	O	Bos	.....	Vor	DC	TD-SP	Own	SG	...	12	8½	920	....
Bates.....50	82	128	74½	72	14000	9	14	66½	54½	Y	3	1.75	2.75	3.75	.....	1.75	14	82	Wau	6-4¾x5½	L	1400	.....	.....	517.0	G	Bos	Sch	Vor	DC	TD-DP	Own	SG	...	12	8½	860	....
Bates.....80	104	146	97	84	22500	13	17	90	65	Y	3	1.5	2.75	3.75	.....	1.25	18	104	Wau	4-6½x7	L	900	.....	.....	929.0	G	Bos	Str	Vor	DC	TD-DP	Own	SG	...	16	10½	650	....
Caterpillar[6].....22	54½	108	57¾°	56⅛	6200°	5½°	9	31.54	25.77	Opt	3	2.0	2.6	3.6	.....	2.1	10	40°	Own	4-4x5	I	1250	.....	144–940	251.0	GD	Eis	Zen	Don	DC	Own-SP	Own	SG	...	10½	7½	950	DM
Caterpillar[6].....30	61½	129	62°	60⅝	9010°	6½°	11½	40.83	35.33	Opt	5	1.7	2.4	3.0	3.7[7]	1.9	13	44°	Own	4-4¼x5½	I	1400	.....	178–900	312.0	GD	Eis	Zen	Don	DC	Own-SP	Own	SG	...	12	8½	840	DM
Caterpillar[6].....Diesel RD-4	61½	121 9/16	62°	60⅝	9470°	6°	11½	41.17	35.68	Opt	5	1.7	2.4	3.0	3.7[7]	1.9	13	44°	Own	4-4¼x5½	I	1400	.....	180–900	312.0	O	Own	.....	Don	DC	Own-SP	Own	SG	...	12	8½	840	DM
Caterpillar[6].....Diesel RD-6	74¾	128⅝	75°	74¼	14820°	7°	10½	51.86	45.38	Opt	4	1.7	2.5	3.2	4.6	1.9	16	56°	Own	3-5½x8	I	850	.....	350–600	623.0	O	Own	.....	Don	DC	Own-SP	Own	SG	...	12	10¾	850	DM
Caterpillar[6].....R-5	74¾	128⅝	75°	72 7/16	13370°	7°	10½	64.06	53.37	Opt	4	1.9	2.8	3.6	5.1	2.1	16	56°	Own	4-5½x6½	I	950	.....	380–700	618.0	G	Eis	Zen	Don	DC	Own-SP	Own	SG	...	12	10¾	950	DM
Caterpillar[6].....50	81⅞	150¼	81⅝°	78 7/16	18080°	7½°	11¼	60.13	52.65	Opt	4	1.6	2.4	3.4	4.7	1.9	18	60°	Own	4-5½x6½	I	850	.....	405–600	618.0	G	Eis	Zen	Don	DC	Own-SP	Own	SG	2	13½	13	752	DM
Caterpillar[6].....Diesel RD-7	81⅞	150¼	81⅝°	81 7/16	20410°	7½°	11¼	71.31	62.44	Opt	4	1.6	2.4	3.4	4.7	1.9	18	60°	Own	4-5¼x8	I	850	.....	482–650	831.0	O	Own	.....	Don	DC	Own-SP	Own	SG	2	13½	13	752	DM
Caterpillar[6].....70	97⅝	175	103⅝	90	31070	9½	10½	89.43	77.07	Opt	6	1.7	2.3	2.7	3.1[8]	(s)	20	78	Own	4-7x8½	I	700	.....	803–420	1308.0	G	Eis	Ens	OV	DC	Own-SP	Own	SG	2	14 7/16	15	700	DM
Caterpillar[6].....Diesel RD-8	97⅝	183	103¾	90	32780	9½	10½	108.37	86.74	Opt	6	1.7	2.4	2.8	3.2[9]	(s)	20	78	Own	6-5¼x8	I	850	.....	780–650	1246.0	O	Own	.....	Don	DC	Own-SP	Own	SG	2	14 7/16	15	719	DM
Cletrac.....E-31	56½	105	41¼	55	5000	....	14	30.5	22.11	Y	3	2.12	2.75	4.0	.....	1.62	8	31	Herc	4-4x4½	L	1300	34–1300	142–1000	226.2	GK	Bos	Til	Vor	DC	Long-DP	Own	SG	2	12	8½	860	DM
Cletrac.....E-38	56½	105	47¾	55	5050	....	14	30.5	22.11	Y	3	2.12	2.75	4.0	.....	1.62	8	38	Herc	4-4x4½	L	1300	34–1300	142–1000	226.2	GK	Bos	Til	Vor	DC	Long-DP	Own	SG	2	12	8½	860	DM
Cletrac.....E-62	56½	105	75½	55	5075	....	18	30.5	22.11	Y	3	2.12	2.75	4.0	.....	1.62	8	62	Herc	4-4x4½	L	1300	34–1300	142–1000	226.2	GK	Bos	Til	Vor	DC	Long-DP	Own	SG	2	12	8½	860	DM
Cletrac.....E-68	56½	105	81½	55	5100	....	18	30.5	22.11	Y	3	2.12	2.75	4.0	.....	1.62	8	68	Herc	4-4x4½	L	1300	34–1300	142–1000	226.2	GK	Bos	Til	Vor	DC	Long-DP	Own	SG	2	12	8½	860	DM
Cletrac.....E-76	56½	105	89½	55	5125	....	18	30.5	22.11	....	3	2.12	2.75	4.0	.....	1.62	8	76	Herc	4-4x4½	L	1300	34–1300	142–1000	226.2	GK	Bos	Til	Vor	DC	Long-DP	Own	SG	2	12	8½	860	DM
Cletrac.....AG	62	106	57	55	6800	....	13½	.....	27.0	Y	3	1.75	2.62	3.75	.....	1.37	12	42	Herc	4-4x4½	L	1530	37–1530	142–1000	226.2	G	Bos	Til	Vor	DC	Long-DP	Own	SG	2	10½	8½	1275	DM
Cletrac.....BG	63	116½	60	59	8350	....	15¼	44.0	35.0	Y	3	1.80	2.62	3.50	.....	1.37	14	44	Herc	6-3¼x4¼	L	1530	49–1530	175–900	282.0	GK	Del	Til	Vor	DC	Long-DP	Own	SG	2	12	8½	1145	DM
Cletrac.....Diesel BD	63	116½	60	59	8800	....	15¼	46.0	35.0	Y	3	1.80	2.62	3.50	.....	1.37	14	44	Herc	6-3¼x4½	L	1530	58–1530	190–1400	280.0	O	.....	.....	Vor	DC	Long-DP	Own	SG	2	12	8½	1145	DM
Cletrac.....CG	74¾	127	67¼	64	11500	....	15¾	53.7	44.	Y	3	1.87	3.05	4.40	.....	2.30	14	48	Herc	6-4¼x4½	L	1585	74–1585	265–1100	383.0	GK	Del	Til	Vor	DC	Long-DP	Own	SG	2	13	11	1015	DM
Cletrac.....DG	74¾	132	67¼	65	12000	....	15¾	69.0	60.0	Y	3	1.95	2.92	4.60	.....	1.95	15	48	Herc	6-4½x5¼	L	1300	84–1300	350–950	529.2	G	Del	Sch	Vor	DC	Long-DP	Own	SG	2	13	11	960	DM
Cletrac.....Diesel DD	74¾	132	67¼	65	12700	....	15¾	67.7	61.18	Y	3	1.80	2.70	4.30	.....	1.80	15	48	Herc	6-4⅜x5¼	L	1200	80–1200	350–1200	474.0	O	.....	.....	Vor	DC	Long-DP	Own	SG	2	13	11	884	DM
C.etrac.....FG	96	173	94½	84	25000	....	16¼	110.9	94.0	Y	3	1.75	2.50	4.30	.....	2.10	20	67	Herc	6-5¾x6	L	1120	130–1120	610–950	935.0	G	Bos	Til	Vor	DC	Long-DP	Own	SI	2	24	15	510	DM
Cletrac.....Diesel FD	96	173	94½	84	25800	....	16¼	107.5	93.0	Y	3	1.75	2.75	4.25	.....	2.10	20	67	Herc	6-5x6	I	1300	132–1300	540–1300	707.0	O	.....	.....	Vor	DC	Long-DP	Own	SI	2	24	15	535	DM
International.....T-20	52⅛	112½	55	55½	6725	6	7 11/16	25.31	18.33	Y	3	1.50	2.75	3.87	.....	2.00	10	41½	Own	4-3¼x5	I	1250	31–1250	139–850	220.9	KD	Own	Zen	Own	CS	Own-SP	Own	SG	...	15¼	7	645	DM
International.....T-40	70	140	63¼	82⅝	11705	7	....	43.53	33.24	Y	5	1.75	2.25	2.75	3.12[10]	2.25	16	47¾	Own	6-4¼x8½	I	1750	52–1750	175–900	198.2	KD	Own	Zen	Own	DC	Roc-SP	Own	SG	...	16¾	9	604	DM
International.....TD-40	70	140	63¼	87½	12218	7	....	43.12	33.51	Y	5	1.75	2.25	2.75	3.12[10]	2.25	16	47¾	Own	4-4¾x6½	I	1100	51–1100	289–475	460.8	O	Own	Own	Don	DC	Roc-SP	Own	SG	...	16¾	9	591	DM
Yuba.....25-40	66	186	73½	61	10000	9¼	11⅝	45	25	Y	2	2.50	3.50	....	.....	.....	.....	.....	Own	4-5¼x7	I	800	45–800	.....	.....	GD	Bos	Str	Pom	CS	Own-SP	Own	IG	2	10°	8½	800	DM

ABBREVIATIONS FOR WHEEL AND TRACK-LAYING TYPES

†—Diesel
°—others Also
*—Special Equipment
+—or more

[1]—International Harvester Co.
[2]—Fifth 12.20 M.P.H.
[3]—Also 1.83 M.P.H.
[4]—Fifth 4.90, Sixth 6.41 M.P.H. Low Reverse 1.72
[5]—Fifth 4.90, Sixth 6.41 M.P.H.
[6]—Also built-in wide track models
[7]—Fifth 5.40 M.P.H.
[8]—Fifth 3.70, Sixth 5.00 M.P.H.
[9]—Fifth 3.90, Sixth 5.30 M.P.H.
[10]—Fifth 4.00 M.P.H.
[11]—Fate-Root-Heath Co.
(a)—Steel Wheels 2700 lbs., Air Tires 3300 lbs.
AM—Air Maze
(b)—Steel Wheels 4220 lbs., Air Tires 4620 lbs.
B&B—Borg & Beck
Bos—Bosch (American)
BS—Briggs & Stratton
(c)—Steel Wheels 4900, Air Tires 5400 lbs.
Cha—Chain
Cla—Clark
Co—Cone Type
CS—Circulating Splash
(d)—Gasoline 14.68 HP., Kerosene 13.45 HP.
D—Distillate
DC—Drilled Crankshaft
Del—Deleo
DM—Driving Members
Don—Donaldson
DP—Double plate—Dry
(e)—Gasoline 9.74 HP., Kerosene 9.44 HP.
Eis—Eisemann
Ens—Ensign
ES—Edison Splitdorf
(f)—Gasoline 16.07 HP., Kerosene 13.88 HP.
FK—Front Knuckle
FM—Fairbanks Morse
(g)—Gasoline 10.46 HP., Kerosene 9.55 HP.
G—Gasoline
(h)—12 to 20 ins.
Herc—Hercules
HuS—Huber-Stearns
I—In-Head
IHS—In-head and Side
IG—Internal Gear
In—Inside
(k)—one in head, one in block—per cylinder
K—Kerosene
Kin—Kingston
KZ—Kingston or Zenith
L—"L" Head
LeR—LeRoi
(m)—40 to 50
Mal—Mallory
MD—Multiple Disk
Mo—Multiple Disk in Oil
(n)—Also available in 12 in. dia.
N—No or None
NR—Not Rated
O—Oil
Opt—Optical
OV—Own—Vortex Type
(p)—Low Reverse 1.72, High Reverse 2.25
PD—Pomona or Donaldson
Pom—Pomona
(q)—Also 20 in. dia.
(r)—also 444 R.P.M.
Roc—Rockford
(s)—Low reverse 1.70, High reverse 2.70
S—Sprockets
SA—Swinging Axle
Sch—Schebler
Scin—Scintilla
SG—Spur Gear
SI—Spur or Internal Gear
SP—Single Plate—Dry
Spl—Splitdorf
Sto—Stokes
Str—Stromberg
TD—Twin Disk
Til—Tillotson
Un—United
Vor—Vortex
Wau—Waukesha
WG—Worm Gear
W-H—Waukesha-Hesselman
Y—Yes **Zen**—Zenith

AMERICAN STOCK, MARINE AND

Line Number	MAKE AND MODEL	Designed for	Number of Cylinders, Bore and Stroke (Ins.)	Rated HP (A.M.A.)	Maximum Brake HP at Specified R.P.M.	Piston Displacement (Cu. Ins.)	Compression Ratio	Maximum Torque at R.P.M. (Lb. Ft.)	No. of Cylinders Cast in one piece	Crankcase—Upper Half Integral with Cylinders	VALVES									Front End Drive—Type
											Arrangement	Exhaust Head Material or S.A.E. No.	Clear Diameter (Ins.)		Lift (Ins.)		Stem Diameter (Ins.)		Seat Angle (Degrees)	
													Intake	Exhaust	Intake	Exhaust	Intake	Exhaust		
1	Allis Chalmers....W	Tr	4—4x4	25.6	25.6–1300	201.0	4.20	118– 900	4(x)	In	I	Sil	1.50	1.50	.375	.375	.375	.375	45	HI
2	Allis Chalmers....UM	Tr	4—4½x5	32.4	40.5–1200	318.0	4.20	182– 800	4(x)	In	I	Sil	1.75	1.50	.437	.437	.375	.375	30	HI
3	Allis Chalmers....K	Tr	4—5x6½	40.0	57.9–1050	511.0	4.40	306– 700	4(x)	In	I	Sil	2.00	2.00	.448	.425	.437	.437	45	HI
4	Allis Chalmers....E	Tr	4—5¼x6½	44.1	61.2–1050	563.0	4.40	327– 700	4(x)	In	I	Sil	2.00	2.00	.448	.425	.437	.437	45	HI
5	Allis Chalmers....L	Tr	6—5¼x6½	66.1	91.9–1050	845.0	4.40	490– 700	6(x)	In	I	Sil	2.00	2.00	.448	.425	.437	.437	45	HI
6	American LaFrance....312	T, B, Tr	12—4x5	76.8	240–2800	754.0	5.16	510–1600	6	In	I	Sil	1.75	1.75	.406	.406	.375	.375	45	Ch
7	Autocar....Blue Streak 358	T	6—4x4¾	38.4	85–2300	358.0	5.50	250– 800	6	Se	L	Sil	1.68	1.56	.375	.375	.437	.437	45	HI
8	Autocar....Blue Streak 404	T	6—4¼x4¾	43.4	97–2200	404.0	5.50	295– 800	6	Se	L	Sil	1.87	1.75	.375	.375	.437	.437	45	HI
9	Autocar....Blue Streak 453	T	6—4½x4¾	48.6	108–2200	453.0	5.50	333– 800	6	Se	L	Sil	1.87	1.75	.375	.375	.437	.437	45	HI
10	Autocar....Blue Streak 501	T	6—4½x5¼	48.6	123–2200	501.0	5.50	375– 800	6	Se	L	Sil	1.87	1.75	.375	.375	.437	.437	45	HI
11	Automatic....J	Tr, St	4—5½x7	40.0	45– 800	665.2	4.00	310– 650	1	Se	L	Sil	2.25	2.25	.312	.312	.....	.....	.....	Sp
12	Automatic....M	Tr, St	4—6½x8	62.0	67– 675	.....	4.00	200– 653	1	Se	L	Sil	2.75	2.75	.375	.375	.....	.....	.....	Sp
13	Automatic....N	Tr, St	4—7½x9	75.0	85– 525	.....	4.00	181– 675	1	Se	L	Sil	3.00	3.00	.375	.375	.....	.....	.....	Sp
14	Automatic....R	Tr, St	4—8½x10	90.0	105– 525	.....	4.00	293– 525	1	Se	L	Sil	3.25	3.25	.375	.375	.....	.....	.....	Sp
15	Brennen....CE	T, B, Tr	4—4½x5	32.4	55–1800	318.1	4.06	225–1000	4	Se	L	Sil	2.00	2.00	.375	.375	.375	.375	45	Sp
16	Brennen....B-70	T, B, Tr	6—4x5½	38.4	70–1800	414.7	4.50	250– 800	3	Se	I	TS	2.12	2.12	.375	.375	.437	.437	45	HI
17	Brennen....100	T, B, Tr	6—4⅜x5½	45.9	75–1800	496.0	4.50	320– 800	3	Se	I	TS	2.12	2.12	.375	.375	.437	.437	45	HI
18	Brennen....150	T, B, Tr	6—4½x6½	48.6	150–2000	620.3	5.00	510–1400	3	Se	I	Sil	2.50	2.50	.437	.437	.500	.500	45	Be
19	Bridgeport....F-20	M	4—3½x3⅞	15.63	45–3200	119.0	.....	82–2000	4	In	L	Sil	1.37	1.25	.312	.312	.312	.312	30	HI
20	Bridgeport....F-26	M	4—3¼x4	16.90	46–3000	133.0	.....	90–2000	4	In	L	Sil	1.12	1.25	.312	.312	.312	.312	30	HI
21	Bridgeport....F-50	M	6—3¾x4¼	33.75	70–2500	282.0	.....	170–1500	6	In	L	Sil	1.50	1.37	.312	.312	.312	.312	30	HI
22	Bridgeport....Pilot 40	M	4—4x4½	25.60	40–2000	226.0	.....	140–1000	4	In	L	Sil	1.50	1.75	.312	.312	.375	.375	30	HI
23	Bridgeport....Pilot 55	M	4—4¼x5	28.90	55–2000	283.0	.....	180–1000	4	In	L	Sil	1.62	1.62	.312	.312	.375	.375	45	HI
24	Buda....HP-205	T, Tr	4—3⅛x4½	23.2	52–2600	205.0	4.75	132–1200	4	In	L	2112	1.50	1.37	.344	.344	.372	.372	45	HI
25	Buda....HPM-205	M	4—3⅛x4½	23.2	57–2800	205.0	5.40	142–1200	4	In	L	2112	1.50	1.37	.344	.344	.372	.372	45	HI
26	Buda....HPM-205-R	M	4—3⅛x4½	23.2	57–2800	205.0	5.40	142–1200	4	In	L	2112	1.50	1.37	.344	.344	.372	.372	45	HI
27	Buda....HP-217	T, Tr	4—3⅛x4¾	23.2	47–1800	217.0	4.75	146–1200	4	In	L	2112	1.50	1.37	.344	.344	.372	.372	45	HI
28	Buda....KT-281	Tr	4—4⅛x5¼	27.2	50–1750	281.0	4.50	173–1000	4	Se	L	2112	1.62	1.62	.281	.312	.372	.372	45	HI
29	Buda....ET-350	T, B, Tr	4—4⅛x5½	32.4	48–1400	350.0	4.70	234– 800	4	Se	L	2112	1.87	1.87	.281	.375	.434	.434	45	HI
30	Buda....YT-381	T, B, Tr	4—4⅛x6	32.4	50–1400	381.7	4.10	222– 850	4	Se	L	2112	2.12	2.12	.281	.312	.434	.434	45	HI
31	Buda....YR-425	Tr	4—4¾x6	36.0	57–1400	425.3	3.80	265– 750	4	Se	L	2112	2.12	2.12	.281	.312	.434	.434	45	HI
32	Buda....BTU	T, B, Tr	4—5x6½	40.0	61–1200	510.5	4.45	330– 650	4	Se	L	2112	2.25	2.25	.375	.375	.434	.434	45	HI
33	Buda....FR	T, B, Tr	4—5⅛x6½	48.5	78–1200	617.7	4.45	410– 650	4	Se	L	2112	2.25	2.25	.375	.375	.434	.434	45	HI
34	Buda....JV-4	Tr	4—5⅜x7⅛	52.9	85–1200	749.0	3.86	472– 750	2	Se	L	2112	2.50	2.50	.375	.375	.434	.434	45	HI
35	Buda....JK-4	Tr	4—6x7⅛	57.6	115–1200	806.0	4.70	560– 700	2	Se	L	2112	2.50	2.50	.375	.375	.434	.434	30	HI
36	Buda....JL-877	T, B, Tr	4—6¼x7⅛	62.5	108–1000	874.0	4.45	645– 650	2	Se	L	2112	2.50	2.50	.375	.375	.434	.434	30	HI
37	Buda....HP-260	T, B	6—3⅛x4½	29.4	68–2800	259.9	4.75	165–1200	6	In	L	2112	1.50	1.37	.344	.344	.372	.372	45	HI
38	Buda....HPM-260	M	6—3⅛x4½	29.4	70–2800	259.9	5.25	183–1000	6	In	L	2112	1.50	1.37	.344	.344	.372	.372	45	HI
39	Buda....HPM-260-R	M	6—3⅛x4½	29.4	70–2800	259.9	5.25	183–1000	6	In	L	2112	1.50	1.37	.344	.344	.372	.372	45	HI
40	Buda....HP-298	T, B, Tr	6—3¾x4½	33.7	78–2800	298.2	4.75	190–1100	6	In	L	2112	1.50	1.37	.344	.344	.372	.372	45	HI
41	Buda....HPM-298	M	6—3¾x4½	33.7	81–2800	298.2	5.25	210–1000	6	In	L	2112	1.50	1.37	.344	.344	.372	.372	45	HI
42	Buda....HPM-298-R	M	6—3¾x4½	33.7	81–2800	298.2	5.25	210–1000	6	In	L	2112	1.50	1.37	.344	.344	.372	.372	45	HI
43	Buda....HP-326	T, B, Tr	6—3⅞x4¾	34.78	75–2600	325.4	4.75	189.5–900	6	In	L	2112	1.50	1.37	.344	.344	.372	.372	(h)	HI
44	Buda....K-325	T, B, Tr	6—3⅞x4¾	34.80	87–2800	325.0	4.80	202–1100	6	In	L	2112	1.75	1.62	.400	.400	.372	.372	45	HI
45	Buda....K-369	T, B, Tr	6—4⅛x4¾	39.60	99–2800	369.0	4.73	225–1100	6	In	L	2112	1.75	1.62	.400	.400	.372	.372	45	HI
46	Buda....KM-369	M	6—4⅛x4¾	39.60	97–2600	369.0	5.30	245–1100	6	In	L	2112	1.75	1.62	.400	.400	.372	.372	45	HI
47	Buda....KM-369-R	M	6—4⅛x4¾	39.60	97–2600	369.0	5.30	245–1100	6	In	L	2112	1.75	1.62	.400	.400	.372	.372	45	HI
48	Buda....K-393	T, B, Tr	6—4⅜x4¾	42.07	103–2600	393.0	4.80	260–1200	6	In	L	2112	1.75	1.62	.400	.400	.372	.372	45	HI
49	Buda....KM-393	M	6—4⅜x4¾	42.07	101–2400	393.0	5.30	260–1200	6	In	L	2112	1.75	1.62	.400	.400	.372	.372	45	HI
50	Buda....KM-393-R	M	6—4⅜x4¾	42.07	101–2400	393.0	5.30	260–1200	6	In	L	2112	1.75	1.62	.400	.400	.372	.372	45	HI
51	Buda....K-428	T, B, Tr	6—4⅜x4¾	45.90	107–2600	428.0	4.75	280–1200	6	In	L	2112	1.75	1.62	.400	.400	.372	.372	45	HI
52	Buda....KM-428	M	6—4⅜x4¾	45.90	105–2400	428.0	5.30	280–1200	6	In	L	2112	1.75	1.62	.400	.400	.372	.372	45	HI
53	Buda....KM-428-R	M	6—4⅜x4¾	45.90	105–2400	428.0	5.30	280–1200	6	In	L	2112	1.75	1.62	.400	.400	.372	.372	45	HI
54	Buda....L-468	T, B, Tr	6—4¼x5½	43.30	105–2400	468.0	4.80	305– 700	6	In	L	2112	1.75	1.62	.400	.400	.372	.372	45	HI
55	Buda....LO-468	T, B, Tr	6—4¼x5½	43.30	120–2400	468.0	5.00	342–1200	6	In	I	2112	1.75	1.50	.312	.312	.372	.372	30	HI
56	Buda....LM-468	M	6—4¼x5½	43.30	111–2400	468.0	5.20	320– 800	6	In	L	2112	1.75	1.62	.400	.400	.372	.372	45	HI
57	Buda....LM-468-R	M	6—4¼x5½	43.30	111–2400	468.0	5.20	320– 800	6	In	L	2112	1.75	1.62	.400	.400	.372	.372	45	HI
58	Buda....L-525	T, B, Tr	6—4½x5½	48.60	111–2200	525.0	4.75	340– 900	6	In	L	2112	1.75	1.62	.400	.400	.372	.372	45	HI
59	Buda....LO-525	T, B, Tr	6—4½x5½	48.60	135–2400	525.0	5.00	384–1200	6	In	I	2112	1.75	1.50	.312	.312	.372	.372	3	HI
60	Buda....LM-525	M	6—4½x5½	48.60	121–2200	525.0	5.20	364– 800	6	In	L	2112	1.75	1.62	.400	.400	.372	.372	45	HI
61	Buda....LM-525-R	M	6—4½x5½	48.60	121–2200	525.0	5.20	364– 900	6	In	L	2112	1.75	1.62	.400	.400	.372	.372	45	HI
62	Buda....GM-572	M	6—4½x6	48.6	110–2000	572.5	4.60	420– 700	6	Se	L	2112	2.25	2.12	.312	.312	.434	.434	45	HI
63	Buda....GM-572-R	M	6—4½x6	48.6	110–2000	572.5	4.60	420– 700	6	Se	L	2112	2.25	2.12	.312	.312	.434	.434	45	HI
64	Buda....GF-638	T, B, Tr	6—4¾x6	54.00	134–2000	638.0	4.75	405–1000	6	Se	L	2112	2.25	2.12	.375	.375	.434	.434	30	HI
65	Buda....GM-638	M	6—4¾x6	54.00	134–2000	638.0	4.75	405–1000	6	Se	L	2112	2.25	2.12	.375	.375	.434	.434	30	HI
66	Buda....GM-638-R	M	6—4¾x6	54.00	134–2000	638.0	4.75	405–1000	6	Se	L	2112	2.25	2.12	.375	.375	.434	.434	30	HI
67	Buda....M-707	T, B, Tr	6—5x6	60.00	150–2000	706.9	4.75	446–1000	6	In	I	2112	2.12	1.87	.360	.360	.435	.435	30	HI
68	Buda....M-766	T, B, Tr	6—5x6½	60.00	155–1800	765.8	4.75	486–1000	6	In	I	2112	2.12	1.87	.360	.360	.435	.435	30	HI
69	Buda....JV-6	Tr	6—5¾x7¼	79.30	142–1200	1129.5	3.88	696– 600	2	Se	L	2112	2.50	2.50	.437	.437	.434	.434	30	HI
70	Buda....JK-6	Tr	6—6x7¼	86.40	188–1400	1230.0	4.70	810– 700	2	Se	L	2112	2.50	2.50	.438	.438	.434	.434	30	HI
71	Buda....JL-1335	T, B, Tr	6—6¼x7¼	93.75	160–1000	1334.6	4.40	880– 600	2	Se	L	2112	2.50	2.50	.438	.438	.434	.434	30	HI
72	Buffalo....Navy BA	M	4—3½x5	19.6	40–1800	192.0	5.00	1400	4	In	L	CI	1.75	1.75	.312	.375	.375	.375	45	HI
73	Buffalo....Dreadnought 4	M	4—5⅞x7	55.2	120–1200	759.0	4.60	525–1200	2	Se	I	Sil	2.62	2.62	.540	.540	.500	.500	45	HI
74	Buffalo....Dreadnought 6	M	6—5⅞x7	82.8	180–1200	1138.0	4.60	790–1200	2	Se	I	Sil	2.62	2.62	.540	.540	.500	.500	45	HI
75	Buffalo....Dreadnought 8	M	8—5⅞x7	110.4	240–1200	1518.0	4.60	1050–1200	2	Se	I	Sil	2.62	2.62	.540	.540	.500	.500	45	HI
76	Buffalo....ATT-4	M	4—8¼x9	108.8	200– 900	1925.0	4.00	1176– 900	2	Se	L	Sil	3.50	3.50	.875	.812	.687	.687	45	HI
77	Buffalo....ATT-6	M	6—8¼x9	163.3	300– 900	2887.0	4.00	1764– 900	2	Se	L	Sil	3.50	3.50	.875	.812	.687	.687	45	HI
78	Buffalo....ATT-8	M	8—8¼x9	217.7	400– 900	3849.0	4.00	2352– 900	2	Se	L	Sil	3.50	3.50	.875	.812	.687	.687	45	HI
79	Capitol....CD-12	M	12—4½x6	97.2	450–2300	1145.0	5.30	.....	6	Se	I	Sil	1.56**	1.56**	.390	.390	.343	.343	45	Sbe
80	Capitol....LA-12	M	12—5x7	120.0	425–1800	1650.0	5.00	.....	1	Se	I	Sil	2.50	2.50	.437	.375	.437	.437	30	Be
81	Capitol....T-12	M	12—5¾x6¼	158.7	600–2000	1947.0	5.30	.....	3	Se	I	Sil	2.06**	2.06**	.500	.500	.500	.500	45	Be
82	Chevrolet....1937	T	6—3½x3¾	29.4	78–3200	216.5	6.25	170 (k)	6	In	I	Ext	1.64	1.46	.305	.319	.343	.343	30	HI
83	Chris-Craft....C	M	4—3¼x4	16.9	45–3000	132.7	5.50	.....	4	In	L	Sil	.....	.....	.312	.312	.....	.....	30	HI
84	Chris-Craft....BR	M	4—3¼x4	16.9	55–3200	132.7	6.20	.....	4	In	L	Sil	.....	.....	.312	.312	.....	.....	30	HI
85	Chris-Craft....B	M	4—3¼x4	16.9	55–3200	132.7	6.20	.....	4	In	L	Sil	1.25	1.12	.312	.312	.....	.....	30	HI
86	Chris-Craft....K	M	6—3⅝x4⅛	27.3	85–3000	221.4	6.20	.....	6	In	L	Sil	.....	.....	.312	.312	.....	.....	30	HI
87	Chris-Craft....KR	M	6—3⅝x4⅛	27.3	85–3000	221.4	6.20	.....	6	In	L	Sil	.....	.....	.312	.312	.....	.....	30	HI
88	Chris-Craft....KA	M	6—3⅝x4⅛	27.3	95–3500	221.4	7.50	.....	6	In	L	Sil	.....	.....	.312	.312	.....	.....	30	HI
89	Chris-Craft....L	M	6—3⅝x4¼	31.5	110–3200	263.2	6.20	.....	6	In	L	Sil	.....	.....	.356	.356	.....	.....	30	HI
90	Chris-Craft....LR	M	6—3⅝x4¼	31.5	110–3200	263.2	6.20	.....	6	In	L	Sil	.....	.....	.356	.356	.....	.....	30	HI
91	Chris-Craft....LA	M	6—3⅝x4¼	31.5	125–3500	263.2	7.50	.....	6	In	L	Sil	.....	.....	.356	.356	.....	.....	30	HI
92	Chris-Craft....M	M	6—4x4¼	38.4	130–3000	320.4	6.20	.....	6	In	L	Sil	.....	.....	.356	.356	.....	.....	30	HI
93	Chris-Craft....MR	M	6—4x4¼	38.4	130–3000	320.4	6.20	.....	6	In	L	Sil	.....	.....	.356	.356	.....	.....	30	HI
94	Chris-Craft....A-120	M	8—5x5¼	80.0	275–2300	824.7	5.60	.....	2	Se	L	Sil	2.31	2.31	.375	.375	.437	.437	45	HI

(For abbreviations see page 327)

COMMERCIAL VEHICLE ENGINES

Ma ers	Length (Ins.)	Weight (with Pins, Rings, and Bushing)—Ozs.	Piston Pin—Diameter and Length (Ins.)	Number of Rings per Piston	Connecting Rods: Material	Connecting Rods: Center to Center Length (Ins.)	Connecting Rods: Weight—with Bushing and Cap (Ozs.)	Crankshaft: Material	Crankshaft: Offset	Crankshaft: Counterbalances Used	Crankshaft: Crank-pin Diameter and Length (Ins.)	Main Bearings: Number	Main Bearings: Diameter and Length (Ins.) Front	Main Bearings: Diameter and Length (Ins.) Rear	Oil Pressure to	Spark Plug: Recommended Make	Spark Plug: Thread Size	Carburetor: Make	Carburetor: Size	Adapted for use of Kerosene or Distillate	Weight (without Carburetor or Ignition)—Lbs.	Overall Dimensions (Ins.): Width	Overall Dimensions (Ins.): Height	Overall Dimensions (Ins.): Length	Bell Housing Provided S.A.E. Numbers	Line Number
CI	4.43	61.0	1.00x3.50	4	CS	7.50	42.0	CS	N	N	2.37x1.75	3	2.43x1.68	2.47x1.93	abc	AC	14 mm.	Zen	1	Yes	512	17½	30¾	33	Yes	1
CI	5.25	80.0	1.31x4.06	4	CS	9.50	96.0	CS	N	N	2.37x2.37	3	2.50x2.50	2.50x2.75	abcd	AC	⅞–18	Zen	1¼	Yes	1000	25	37	38	Yes	2
CI	6.37	96.0	1.51x4.87	4	CS	13.0	182.0	CS	N	N	2.75x3.37	4	3.00x4.00	3.00x4.75	abcd	AC	⅞–18	Zen	1½	Yes	2000	24	44½	58	Yes	3
CI	6.75	158.0	1.51x4.87	4	CS	13.0	182.0	CS	N	N	2.75x3.37	4	3.00x4.00	3.00x4.75	abcd	AC	⅞–18	Zen	1½	Yes	2000	24	44½	58	Yes	4
CI	6.75	158.0	1.51x4.87	4	CS	13.0	182.0	CS	N	N	2.75x3.37	4	3.00x4.00	3.00x4.75	abcd	AC	⅞–18	Zen	(2)1½	No	2900	30	51	71½	No	5
Ala	4.84	39.0	1.12x3.62	4	CS	12.00	85.0	CNM	N		2.75x2.75	4	3.50x2.25	3.50x2.37	abcde	CH	⅞–18	Str	1¾	No	1980	31¾	43⅛	58	1, 2	6
Ala	5.75	50.7	1.12x3.68	4	AS	10.25	78.9	CM	N	N	2.25x1.62	7	3.00x1.87	3.00x2.62	abcdef	CH	⅞–18	Str	1½	No	1120	26	34	43	2	7
Ala	5.75	50.7	1.12x3.68	4	AS	10.25	78.9	CM	N	N	2.50x1.71	7	3.00x2.00	3.00x2.87	abcdef	CH	⅞–18	Str	1¾	No	1275	27	40	47	2	8
Ala	5.75	50.7	1.12x3.68	4	AS	10.25	78.9	CM	N	N	2.50x1.71	7	3.00x2.00	3.00x2.87	abcdef	CH	⅞–18	Str	1¾	No	1275	27	40	47	2	9
Ala	5.75	56.8	1.12x3.93	4	AS	10.25	78.9	CM	N	N	2.50x1.71	7	3.00x2.00	3.00x2.87	abcdef	CH	⅞–18	Str	1¾	No	1275	27	40	47	2	11
Ala	5.75	56.8	1.12x3.93	4	AS	10.25	82.7	CM	N	N	2.12x1.81	7	3.25x1.98	3.25x2.87	abcdef	CH	⅞–18	Str	1¾	No	1300	27	40¼	47	2	10
CI	7.00	.....	1.43x4.62	...	CS	.....	.....	CS	...	N	2.25	5	2.25x4.75	2.25x4.00	abce	Opt	⅞–18	Opt	1½	Opt	1800	19¼	36	59	No	11
CI	9.00	.....	1.68x6.12	...	CS	.....	.....	CS	...	N	2.75	5	2.75x6.62	2.75x5.00	abce	Opt	⅞–18	Opt	1¾	Opt	2700	22	43	68¼	.....	12
CI	10.50	.....	2.00x7.12	...	CS	.....	.....	CS	...	...	3.00	5	3.00x7.00	3.00x6.00	abc	Opt	⅞–18	Opt	2	Opt	3700	24	48	78	.....	13
CI	11.00	.....	2.43x8.37	...	CS	.....	.....	CS	N	N	3.50	5	3.50x6.50	3.50x5.12	ace	Opt	⅞–18	Opt	⅞	Opt	4700	27	54	84	No	14
SS	5.00	72.0	1.17x4.00	5	AS	.....	.....	NS	N	...	2.50x2.50	3	2.25x4.25	2.25x3.50	abce	Opt	.....	Str	1¼	Yes	650	21	29¾	37⅞	3	15
SS	4.50	64.0	1.17x3.87	4	CS	.....	.....	CNS	...	...	2.50x2.00	3	2.75x4.50	2.75x3.00	abce	Opt	⅞–18	Str	1½	Yes	800	25¾	33	49¼	3	16
SS	4.50	70.0	1.25x3.87	5	AS	.....	.....	CNS	...	...	2.50x2.00	3	2.75x4.50	2.75x3.00	abce	Opt	⅞–18	Str	1½	Yes	875	25¾	33	49¼	3	17
SS	5.00	72.0	1.37x4.00	5	CS	12.0	.....	CNS	...	...	2.62x2.62	7	2.62x5.00	2.62x5.00	abcde	Opt	... mm.	Str	1¾	Yes	1000	22	40	54	Opt	18
AI	3.00	.....	.75x3.00	4	AS	.....	.....	NS	N	N	1.75x1.50	3	1.87x1.62	1.87x1.62	abcde	SP	⅞–18	Sch	1¼†	N	365	21	24	36	Opt	19
CI	3.06	.....	.75x3.12	4	AS	6.56	.....	NS	N	N	1.75x1.50	3	2.00x1.62	2.00x1.62	abcde	CH	⅞–18	Zen	1¼†	N	348	19	21	33	Opt	20
CI	3.50	.....	1.00x3.62	4	AS	8.00	.....	NS	N	N	2.00x1.50	7	2.50x1.31	2.50x2.12	abcde	CH	⅞–18	Zen	1¼†	N	350	22	24⅜	51	Opt	21
CI	4.00	.....	1.00x3.87	3	AS	8.00	.....	NS	N	N	2.00x1.50	3	2.00x2.18	2.00x2.62	abcde	SP	⅞–18	Zen	1¼†	N	590	22	24⅜	45	Opt	22
CI	5.00	.....	1.37x4.87	3	AS	9.50	.....	NS	N	N	2.00x2.25	3	2.00x3.18	2.00x3.31	abcde	SP	⅞–18	Zen	1¼†	D	890	17	18½	53½	Opt	23
CI	3.75	42.0	1.12x3.22	4	CS	9.50	42.0	CS	N	N	2.12x1.62	5	3.00x1.50	3.00x2.12	acbde	AC	18 mm.	Zen	1¼	No	525	26	29	31	4	24
CI	3.75	42.0	1.12x3.22	4	CS	9.50	42.0	CS	N	N	2.12x1.62	5	3.00x1.50	3.00x2.12	abcde	AC	18 mm.	Str	1¼†	No	715	23¼	27	43	RGP	25
CI	3.75	42.0	1.12x3.22	4	CS	9.50	42.0	CS	N	N	2.12x1.62	5	3.00x1.50	3.00x2.12	abcde	AC	18 mm.	Str	1¼†	No	770	23¼	27	51	RGP	26
CI	3.75	42.0	1.12x3.22	4	CS	9.50	42.0	CS	N	N	2.12x1.62	5	3.00x1.50	3.00x2.12	abcde	AC	18 mm.	Zen	1¼	No	540	25¾	31	38	4	27
CI	5.00	64.0	1.50x3.12	4	CS	11.25	89.0	CS	N	N	2.00x2.25	3	1.87x2.87	2.12x3.44	abcde	AC	⅞–18	Zen	1¼	No	875	25¾	33¼	40	3	28
...	5.37	89.0	1.12x3.68	4	AS	12.25	113.0	CS	N	N	2.12x2.50	3	2.12x3.09	2.37x3.94	abcde	AC	⅞–18	Zen	1¼	No	980	25¾	30	46	3	29
CI	6.25	97.0	1.25x3.87	4	AS	13.25	113.7	CS	N	N	2.25x3.00	3	2.12x3.31	2.37x4.44	abcde	AC	⅞–18	Zen	1¼	No	1017	25¾	36	47	3	30
...	6.12	111.0	1.43x4.11	4	AS	13.25	106.0	CS	N	N	2.25x3.00	3	2.50x3.00	2.50x4.06	abcde	AC	⅞–18	Zen	1½	No	1087	25¾	36	47	3	31
CI	6.75	142.0	1.37x4.37	4	AS	14.37	163.0	CS	N	N	2.50x3.12	3	2.25x4.12	2.62x4.69	abcde	AC	⅞–18	Zen	1½	No	1409	28¾	40	52	1	32
CI	6.75	144.0	1.37x4.87	4	AS	14.37	163.0	CS	N	N	2.50x3.12	3	2.25x4.12	2.62x4.69	abcde	AC	⅞–18	Zen	1½	No	1430	28¾	40	52	1	33
CI	6.87	172.0	2.00x4.87	4	AS	14.62	227.2	CS	N	N	1.50x2.75	3	3.00x4.75	3.00x4.75	abcde	AC	⅞–18	Zen	1¾	No	1925	30	44	58	1	34
CI	6.87	172.0	2.00x5.12	4	CS	14.62	227.2	CS	N	N	3.00x3.31	3	3.00x4.75	3.00x4.75	abcde	AC	⅞–18	Zen	1¾	No	1925	30	44	58	1	35
CI	6.87	199.5	2.00x5.33	4	CS	14.62	227.2	CS	N	N	3.00x3.31	3	3.00x4.75	3.00x4.75	abcde	AC	⅞–18	Zen	1¾	No	1925	30	44	58	1	36
CI	3.75	37.0	1.12x3.00	4	CS	9.50	42.0	CS	N	N	2.12x1.62	7	3.00x1.50	3.00x2.12	abcde	AC	18 mm.	Zen	1½	No	.....	25¾	33	39	3	37
CI	3.75	37.0	1.12x3.00	4	CS	9.50	42.0	CS	N	N	2.12x1.62	7	3.00x1.50	3.00x2.12	abcde	AC	18 mm.	Str	1½†	No	880	22	28	54	RGP	38
CI	3.75	37.0	1.12x3.00	4	CS	9.50	42.0	CS	N	N	2.12x1.62	7	3.00x1.50	3.00x2.12	abcde	AC	18 mm.	Str	1½†	No	940	22	28	60	RGP	39
CI	3.75	37.0	1.12x3.00	4	CS	9.50	42.0	CS	N	N	2.12x1.62	7	3.00x1.50	3.00x2.12	abcde	AC	18 mm.	Str	1½†	No	940	22	28	60	3	40
CI	3.75	42.0	1.12x3.25	4	CS	9.50	42.0	CS	N	N	2.12x1.62	7	3.00x1.50	3.00x2.12	abcde	AC	18 mm.	Zen	1½	No	675	25¾	33	39	3	41
CI	3.75	42.0	1.12x3.25	4	CS	9.50	42.0	CS	N	N	2.12x1.62	7	3.00x1.50	3.00x2.12	abcde	AC	18 mm.	Str	1½†	No	890	22	28	54	RGP	42
CI	3.75	42.0	1.12x3.25	4	CS	9.50	42.0	CS	N	N	2.12x1.62	7	3.00x1.50	3.00x2.12	abcde	AC	18 mm.	Str	1½†	No	950	22	28	60	RGP	43
CI	3.75	42.0	1.12x3.22	4	CS	9.50	42.0	CS	N	N	2.12x1.62	7	3.00x1.50	3.00x2.12	abcde	AC	18 mm.	Zen	1½	No	.....	25¾	33	39	3	44
CI	4.37	59.5	1.25x3.22	4	CS	9.50	58.0	CS	N	N	2.37x1.75	7	3.00x1.75	3.00x2.50	abcde	AC	18 mm.	Zen	1¾	No	900	25¾	30	47	3	45
CI	4.37	63.5	1.25x3.47	4	CS	9.50	58.0	CS	N	N	2.37x1.75	7	3.00x1.75	3.00x2.50	abcde	AC	18 mm.	Zen	1¾	No	900	25¾	30	47	3	46
CI	4.37	63.5	1.25x3.47	4	CS	9.50	58.0	CS	N	N	2.37x1.75	7	3.00x1.75	3.00x2.50	abcde	AC	18 mm.	Str	1¾†	No	1250	24	29	60	3	47
CI	4.37	63.5	1.25x3.47	4	CS	9.50	58.0	CS	N	N	2.37x1.75	7	3.00x1.75	3.00x2.50	abcde	AC	18 mm.	Str	1¾†	No	1380	24	29	65	3	48
CI	4.37	65.5	1.25x3.47	4	CS	9.50	58.0	CS	N	N	2.37x1.75	7	3.00x1.75	3.00x2.50	abcde	AC	18 mm.	Zen	1¾	No	900	25¾	30	47	3	49
CI	4.37	65.5	1.25x3.47	4	CS	9.50	58.0	CS	N	N	2.37x1.75	7	3.00x1.75	3.00x2.50	abcde	AC	18 mm.	Str	1¾†	No	1260	24	29	60	3	50
CI	4.37	65.5	1.25x3.47	4	CS	9.50	58.0	CS	N	N	2.37x1.75	7	3.00x1.75	3.00x2.50	abcde	AC	18 mm.	Str	1¾†	No	1390	24	29	65	3	51
CI	4.37	68.3	1.25x3.82	4	CS	9.50	58.0	CS	N	N	2.37x1.75	7	3.00x1.75	3.00x2.50	abcde	AC	18 mm.	Zen	1¾	No	900	25¾	30	47	3	52
CI	4.37	68.3	1.25x3.82	4	CS	9.50	58.0	CS	N	N	2.37x1.75	7	3.00x1.75	3.00x2.50	abcde	AC	18 mm.	Str	1¾†	No	1300	24	29	60	3	53
CI	4.37	68.3	1.25x3.82	4	CS	9.50	58.0	CS	N	N	2.37x1.75	7	3.00x1.75	3.00x2.50	abcde	AC	18 mm.	Str	1¾†	No	1430	24	29	65	3	54
CI	4.75	84.0	1.25x3.47	4	CS	11.00	66.0	CS	N	N	2.37x1.75	7	3.00x1.75	3.00x2.50	abcde	AC	18 mm.	Zen	1¾	No	950	25¾	33	47	3	55
CI	4.75	84.0	1.24x4.00	5	AS	11.00	78.0	CS	N	N	2.37x1.75	7	3.00x1.75	3.00x2.50	abcde	AC	14 mm.	Zen	1¾	No	1210	29	38	49	2, 3	56
CI	4.75	84.0	1.25x3.47	4	CS	11.00	66.0	CS	N	N	2.37x1.75	7	3.00x1.75	3.00x2.50	abcde	AC	18 mm.	Str	1¾†	No	1315	25	31	60	3	57
CI	4.75	84.0	1.25x3.47	4	CS	11.00	66.0	CS	N	N	2.37x1.75	7	3.00x1.75	3.00x2.50	abcde	AC	18 mm.	Str	1¾†	No	.....	25	31	68	3	58
CI	4.75	88.0	1.25x3.94	4	CS	11.00	66.0	CS	N	N	2.37x1.75	7	3.00x1.75	3.00x2.50	abcde	AC	18 mm.	Zen	1¾	No	950	25¾	33	47	3	59
Ala	4.75	88.0	1.24x3.81	5	AS	11.00	78.0	CS	N	N	2.37x1.75	7	3.00x2.50	3.00x2.50	abcde	AC	14 mm.	Zen	1¾	No	1195	29	38	49	2, 3	60
CI	4.75	88.0	1.25x3.94	4	CS	11.00	66.0	CS	N	N	2.37x1.75	7	3.00x1.75	3.00x2.50	abcde	AC	18 mm.	Str	1¾†	No	1320	25	31	60	3	61
CI	4.75	88.0	1.25x3.94	4	CS	11.00	66.0	CS	N	N	2.37x1.75	7	3.00x1.75	3.00x2.50	abcde	AC	18 mm.	Str	1¾†	No	1475	25	31	68	3	62
CI	6.12	93.0	1.62x3.75	4	AS	13.25	138.6	CS	N	N	3.00x2.25	4	3.00x2.25	3.00x3.69	abcde	AC	18 mm.	Zen	1¾†	No	1660	25½	35¾	70	1	63
CI	6.12	93.0	1.62x3.75	4	AS	13.25	138.6	CS	N	N	3.00x3.69	4	3.00x2.25	3.00x3.69	abcde	AC	18 mm.	Zen	1¾†	No	1870	25½	35¾	84	1	64
CI	6.12	94.0	1.62x4.00	4	AS	13.25	138.6	CS	N	N	3.00x2.25	4	3.00x2.25	3.00x3.69	abcde	AC	18 mm.	Zen	1¾	No	1265	28¾	43	53	1	65
CI	6.12	94.0	1.62x4.00	4	AS	13.25	138.6	CS	N	N	3.00x2.25	4	3.00x2.25	3.00x3.69	abcde	AC	18 mm.	Zen	1¾†	No	1675	25½	35¾	70	RGP	66
CI	6.12	94.0	1.62x4.00	4	AS	13.25	138.6	CS	N	N	3.00x2.25	4	3.00x2.25	3.00x3.69	abcde	AC	18 mm.	Zen	1¾†	No	1900	25½	35¾	84	RGP	67
CI	6.00	127.0	1.75x4.15	5	CV	12.50	164.0	CS	N	N	3.24x2.12	7	3.00x3.00	3.00x3.00	abcde	AC	14 mm.	Zen	1¾	No	2300	31	49	57	1	68
CI	6.00	127.0	1.75x4.15	5	AS	12.50	164.0	CS	N	N	3.24x2.12	7	3.00x3.00	3.00x3.00	abcde	AC	14 mm.	Zen	1¾	No	2360	31	49	57	1	69
CI	6.87	172.0	2.00x4.87	4	AS	15.25	239.0	CS	N	Y	3.50x3.31	4	3.50x4.75	3.50x4.75	abcde	AC	⅞–18	Zen	2	No	3210	28⅝	43	74	1	70
CI	6.87	196.0	2.00x5.12	4	AS	15.25	239.0	CS	N	N	3.50x3.31	4	3.50x4.75	3.50x4.75	abcde	AC	⅞–18	Zen	2	No	3250	28⅝	43	74	1	71
CI	6.87	199.5	2.00x5.33	4	...	15.25	239.0	CS	N	...	3.50x3.31	4	3.50x4.75	3.50x4.75	abcde	AC	⅞–18	Zen	2	No	3270	28⅝	43	74	1	72
CI	3.75	.....	1.09x3.31	3	CS	10.25	.....	CS	N	N	1.87x2.12	3	2.25x.....	2.25x.....	.....	AC	⅞–18	Zen	1†	K	720	22	28	53	RGP	73
Ala	6.12	.....	1.50x5.62	4	AS	14.00	.....	CNS	N	N	3.00x2.37	5	3.75x.....	3.75x.....	abe	AC	⅞–18	Str	2½†	No	2500	24	46	78	RGP	74
Ala	6.12	.....	1.50x5.62	4	AS	14.00	.....	CNS	N	N	3.00x2.37	7	3.75x.....	3.75x.....	abe	AC	⅞–18	Str(2)	2½†	No	3000	24	46	94	RGP	75
Ala	6.12	.....	1.50x5.62	4	AS	14.00	.....	CNS	N	N	3.00x2.37	9	3.75x.....	3.75x.....	abe	AC	⅞–18	Str(2)	2½†	No	4000	24	46	111	RGP	75
Ala	9.00	.....	2.00x8.00	4	AS	21.00	.....	CNS	N	N	3.75x4.50	5	5.00x.....	5.00x.....	abce	AC	⅞–18	Str	2½†	No	7000	47	54	132	RGP	76
Ala	9.00	.....	2.00x8.00	4	AS	21.00	.....	CNS	N	N	3.75x4.50	7	5.00x.....	5.00x.....	abce	AC	⅞–18	Str(3)	2½†	No	11600	47	54	160	RGP	77
Ala	9.00	.....	2.00x8.00	4	AS	21.00	.....	CNS	N	N	3.75x4.50	9	5.00x.....	5.00x.....	abce	AC	⅞–18	Str(4)	2½†	No	15000	47	54	188	RGP	78
Ala	3.12	.....	1.12x3.93	3	AS	10.00	.....	CNS	N	N	2.50x2.25	7	3.00x.....	3.00x.....	abcem	AC	18 mm.	Str	.....	No	1235	35½	31¾	87	RGP	79
Ala	5.25	.....	1.25x4.23	4	AS	12.00	.....	.....	N	N	2.37x2.50	7	2.62x.....	2.62x.....	abcem	AC	18 mm.	Zen	†	No	1700	30	39	84	RGP	80
Ala	5.50	.....	1.50x5.25	4	AS	10.93	.....	CNS	N	N	3.00x2.50	7	3.25x.....	3.25x.....	abcem	AC	18 mm.	Str	†	No	2250	33	39	94	RGP	81
CI	4.01	37.76	.875x3.09	3	CS	6.81	28.0	CS	N	Y	2.31x1.12	4	2.68x1.18	2.78x1.62	abc	AC	14 mm.	Car	1¼	No	555	21	32	38	.....	82
Ala	.....	.....	.....	3	AS	.....	.....	1045	N	N	1.75x1.12	3	2.00x1.62	2.00x1.62	ab	CH	14 mm.	Zen	1†	No	450	24	22	31	RGP	83
Ala	.....	.....	.....	3	AS	.....	.....	1045	N	N	1.75x1.12	3	2.00x1.62	2.00x1.62	ab	CH	14 mm.	Zen	1¼†	No	495	24	22	38	RRGP	84
Ala	3.06	20.5	.750x2.81	3	AS	6.56	20.0	1045	N	N	1.75x1.12	3	2.00x1.62	2.00x1.62	ab	CH	14 mm.	Zen	1¼†	No	450	24	22	31	RGP	85
Ala	.....	.....	.....	4	AS	.....	.....	1045	N	N	2.00x1.25	7	2.50x1.93	2.50x1.37	ab	CH	14 mm.	Zen	1¼†	No	600	24	25	40	RGP	86
Ala	.....	.....	.....	4	AS	.....	.....	1045	N	N	2.00x1.25	7	2.50x1.93	2.50x1.37	ab	CH	14 mm.	Zen	1½†	No	700	24	25	47	RRGP	87
Ala	.....	.....	.....	4	AS	.....	.....	1045	N	N	2.00x1.25	7	2.50x1.93	2.50x1.37	ab	CH	14 mm.	Zen	1½†	No	595	24	25	40	RGP	88
Ala	.....	.....	.....	4	AS	.....	.....	NS	N	N	2.00x1.50	7	2.50x2.12	2.50x1.37	ab	CH	14 mm.	Zen	1¾†	No	815	24	27	46	RGP	89
Ala	.....	.....	.....	4	AS	.....	.....	NS	N	N	2.00x1.50	7	2.50x2.12	2.50x1.37	ab	CH	14 mm.	Zen	1¾†	No	930	24	27	54	RRGP	90
Ala	.....	.....	.....	4	AS	.....	.....	NS	N	N	2.00x1.50	7	2.50x2.12	2.50x1.37	ab	CH	14 mm.	Zen	1½(D)†	No	790	24	27	46	RGP	91
Ala	.....	.....	.....	4	AS	.....	.....	NS	N	N	2.00x1.50	7	2.50x2.12	2.50x1.37	ab	CH	14 mm.	Zen	1¾†	No	825	24	27	46	RGP	92
Ala	.....	.....	.....	4	AS	.....	.....	NS	N	N	2.00x1.50	7	2.50x2.12	2.50x1.37	ab	CH	14 mm.	Zen	1¾†	No	940	24	27	54	RRGP	93
Ala	5.87	.....	1.37x4.25	4	1045	11.25	.....	1045	N	Y	3.00x2.00	3	3.00x3.75	3.00x3.56	abc	CH	18 mm.	Hol	2(D)†	No	1640	34	41	62	RGP	94

(For abbreviations see page 327)

AMERICAN STOCK, MARINE AND

Line Number	MAKE AND MODEL	Designed for	Number of Cylinders, Bore and Stroke (Ins.)	Rated HP (A.M.A.)	Maximum Brake HP at Specified R.P.M.	Piston Displacement (Cu. Ins.)	Compression Ratio	Maximum Torque at R.P.M. (Lb. Ft.)	No. of Cylinders Cast in one piece	Crankcase—Upper Half Integral with Cylinders	VALVES								Front End Drive—Type
											Arrangement	Exhaust Head Material or S.A.E. No.	Clear Diameter (Ins.)		Lift (Ins.)		Stem Diameter (Ins.)		Seat Angle (Degrees)	
													Intake	Exhaust	Intake	Exhaust	Intake	Exhaust		
1	Chris-Craft A-120-A	M	8—5 1/16x5 1/4	91.9	350–2800	845.4	7.80		2	Se	L	Sil	2.31	2.31	.375	.375	.437	.437	45	HI
2	Chrysler Ace A & C	M	6—3 1/16x4 3/8	23.4	73–3200	201.0	6.00		6	In	L	Sil								HI
3	Chrysler Ace CR	M	6—3 1/16x4 3/8	23.4	70–1400	201.0	6.00		6	In	L	Sil								HI
4	Chrysler Ace CR	M	6—3 1/16x4 3/8	23.4	70–1100	201.0	6.00		6	In	L	Sil								HI
5	Chrysler Crown A & C	M	6—3 5/16x4 1/2	27.3	93–3200	241.6	6.00		6	In	L	Sil								HI
6	Chrysler Crown CR	M	6—3 5/16x4 1/2	27.3	85–1400	241.6	6.00		6	In	L	Sil								HI
7	Chrysler Crown CR	M	6—3 5/16x4 1/2	27.3	83–1100	241.6	6.00		6	In	L	Sil								HI
8	Chrysler Royal 8-C	M	8—3 1/16x4 7/8	33.8	115–3200	323.5	6.00		8	In	L	Sil								HI
9	Chrysler Royal 8-CR	M	8—3 1/16x4 7/8	33.8	110–1400	323.5	6.00		8	In	L	Sil								HI
10	Chrysler Royal 8-CR	M	8—3 1/16x4 7/8	33.8	109–1100	323.5	6.00		8	In	L	Sil								HI
11	Chrysler Majestic C	M	8—3 1/16x5	33.8	152–3200	385.0	6.00		8	In	L	CNT								HI
12	Chrysler Majestic CR	M	8—3 1/16x5	33.8	145–1400	385.0	6.00		8	In	L	CNT								HI
13	Chrysler Majestic CR	M	8—3 1/16x5	33.8	145–1100	385.0	6.00		8	In	L	CNT								HI
14	Climax G4A	Tr, Ind	4—4 1/16x5 1/4	27.2	39–1200	281.0	4.10	177– 800	4	In	I	Sil	1.75	1.75	.406	.406	.375	.375	45	HI
15	Climax G4B	Tr, Ind	4—4 3/16x5 1/4	30.6	44–1200	316.0	4.10	205– 800	4	In	I	Sil	1.75	1.75	.406	.406	.375	.375	45	HI
16	Climax G4C	Tr, Ind	4—4 1/16x5 1/4	32.4	47–1200	334.0	4.10	217– 800	4	In	I	Sil	1.75	1.75	.406	.406	.375	.375	45	HI
17	Climax H4A	Tr, Ind	4—4 3/16x6 1/4	36.1	61–1200	443.0	4.10	279– 800	4	In	I	Sil	2.12	2.12	.437	.437	.437	.437	45	HI
18	Climax H4B	Tr, Ind	4—5 1/16x6 1/4	42.0	73–1200	516.0	4.10	342– 800	4	In	I	Sil	2.12	2.12	.437	.437	.437	.437	45	HI
19	Climax N4A	Tr, Ind	4—5 1/16x6 1/2	44.0	85–1200	563.0	4.30	380– 650	4	In	I	Sil	2.25	2.25	.500	.500	.562	.562	45	HI
20	Climax N4B	Tr, Ind	4—5 3/16x6 1/2	52.9	100–1200	675.0	4.30	463– 650	4	In	I	Sil	2.25	2.25	.500	.500	.562	.562	45	HI
21	Climax TU	Tr, Ind	4—5 1/16x7	48.5	77–1200	665.0	4.10	378– 650	2	Se	L	Sil	2.25	2.25	.312	.312	.437	.437	45	Sp
22	Climax R4U	Tr, Ind	4—6x7	57.6	97–1200	791.6	4.42	475– 650	2	Se	L	Sil	2.50	2.50	.375	.375	.562	.562	45	HI
23	Continental Y-4069	C	4—2 1/16x3 1/2	10.0	26.8–3400	68.7	6.00	48.9–1300	4	In	L	CNS	.93	.75	.284	.284	.312	.312	(h)	HI
24	Continental Y-4091	C	4—2 7/16x3 1/2	13.2	36–3300	90.8	6.00	66–1300	4	In	L	CNS	.93	.75	.284	.284	.312	.312	(h)	HI
25	Continental C-4113	C	4—3x4	14.4	41.5–3300	113.1	5.13	99–1200	4	In	L	CNS	1.18	1.18	.281	.281	.312	.312	30	Ch
26	Continental C-4124	C, T	4—3x4 3/16	14.4	46–3300	123.3	6.00	88.5–1750	4	In	L	Sil	1.37	1.06	.281	.280	.312	.312	(h)	Ch
27	Continental C-4140	C, T	4—3 1/16x4 3/8	16.2	52–3300	139.6	6.00	105–1750	4	In	L	Sil	1.37	1.06	.281	.280	.312	.312	(h)	Ch
28	Continental C-4143	C	4—3 1/16x4	18.2	40–2600	143.1	5.13	99–1200	4	In	L	CNS°	1.18	1.12	.281	.281	.312	.312	30	Ch
29	Continental F-4162	C, T	4—3 7/16x4 3/8	18.9	60–3300	162.4	6.00	121–1750	4	In	L	Sil	1.37	1.06	.284	.284	.312	.312	(h)	Ch
30	Continental F-6170	C	6—3x4	21.6	62–3400	169.6	5.00	120–1200	6	In	L	CNS	1.36	1.05	.284	.284	.314	.313	30	Ch
31	Continental D-6170	T	6—3x4	21.6	59.5–3500	169.6	5.00	124–1375	6	In	I	CNS	1.36	1.05	.378	.378	.314	.313	30	HI
32	Continental DS (1) 6170	Tr	6—3x4	21.6	59.5–3500	169.6	5.00	124–1375	6	In	I	CNS	1.36	1.05	.378	.378	.314	.313	30	HI
33	Continental D-6184	T	6—3 1/16x4	23.4	63–3300	184.0	5.00	136–1375	6	In	I	CNS	1.36	1.05	.378	.378	.314	.313	30	HI
34	Continental DS (1) 6184	Tr	6—3 1/16x4	23.4	63–3300	184.0	5.00	136–1375	6	In	I	CNS	1.36	1.05	.378	.378	.314	.313	30	HI
35	Continental D-6199	T	6—3 1/16x4	23.3	65–3250	199.1	5.00	148–1375	6	In	I	CNS	1.36	1.05	.378	.378	.314	.313	30	HI
36	Continental F-6199	C	6—3 1/16x4	23.3	68.5–3500	199.1	5.00	150–1300	6	In	L	CNS	1.36	1.05	.284	.284	.314	.313	30	Ch
37	Continental D-6202	T	6—3 1/16x4 3/8	23.4	66–3200	202.0	5.00	150–1375	6	In	I	CNS	1.36	1.05	.378	.378	.314	.313	30	HI
38	Continental DS (1) 6202	Tr	6—3 1/16x4 3/8	23.4	66–3200	202.0	5.00	150–1375	6	In	I	CNS	1.36	1.05	.378	.378	.314	.313	30	HI
39	Continental F-6209	T	6—3 5/16x4 3/8	24.4	71–3300	209.5	5.00	154–1300	6	In	L	CNS	1.36	1.05	.284	.284	.314	.313	30	Ch
40	Continental D-6218	T, Tr	6—3 1/16x4 3/8	25.3	69–3125	217.7	5.00	162–1375	6	In	I	CNS	1.36	1.05	.378	.378	.314	.313	30	HI
41	Continental F-6218	T	6—3 1/16x4 3/8	25.3	73.5–3200	217.7	5.00	162–1200	6	In	L	CNS	1.36	1.05	.284	.284	.314	.313	30	Ch
42	Continental A-6222	T	6—3 7/16x4	28.3	78–3500	222.0	....	156–1300	6	In	L	Sil	1.55	1.30	.344	.344	.340	.340	45	Ch
43	Continental A-6244	T	6—3 7/16x4 3/8	28.3	85–3350	244.0	5.50	170–1300	6	In	L	Sil	1.55	1.30	.344	.344	.340	.340	45	Ch
44	Continental E-600	T, B	6—3 1/16x4 1/2	32.6	73–2700	288.3	4.67	192– 900	6	In	L	CNS	1.81	1.62	.406	.406	.437	.437	30	HI
45	Continental E-601	T, B	6—3 7/16x4 1/2	36.0	80–2650	318.4	4.54	214– 900	6	In	L	CNS	1.81	1.62	.406	.406	.437	.437	30	HI
46	Continental E-602	T, B	6—4 1/16x4 1/2	40.8	90–2550	360.7	4.46	252– 900	6	In	L	CNS	1.81	1.62	.406	.406	.437	.437	30	HI
47	Continental E-603	T, B	6—4 1/16x4 1/2	43.3	95–2500	383.0	4.54	265–1000	6	In	I	CNS	1.81	1.62	.406	.406	.437	.437	30	HI
48	Continental 20-R	T, B	6—4 1/16x4 3/4	40.9	106–2600	380.9	4.75	276–1200	6	In	I	CNS	1.81	1.62	.448	.448	.437	.437	30	Ch
49	Continental 21-R	T, B	6—4 3/16x4 3/4	46.0	118–2550	428.4	4.62	308–1200	6	In	I	CNS	1.81	1.62	.448	.448	.437	.437	30	Ch
50	Continental 22-R	T, B	6—4 1/2x5 1/4	48.6	138–2400	501.0	4.50	364–1200	6	In	I	CNS	1.81	1.62	.448	.448	.437	.437	30	Ch
51	Cyclone C-4	T, B, Tr	4—4 3/4x6	36.1	50–1000	425.0	5.60	.....	4	In	I	Sil	2.12	2.12	.375	.375	.437	.437	45	HI
52	Cyclone C-4	T, B, Tr	4—4 3/4x6	36.1	75–1600	425.0	5.60	.....	4	In	I	Sil	2.25	2.25	.375	.375	.437	.437	45	HI
53	Cyclone C-4	T, B, Tr	4—5x6	40.0	85–1600	471.2	5.60	.....	4	In	I	Sil	2.25	2.25	.375	.375	.437	.437	45	....
54	Domark 6AH (5) 309	T, B, Tr	6—3 5/16x5	31.5	84–2500	309.0	4.90	210–1500	1	Se	I	2112	1.59	1.31	.375	.375	.375	.375	30	HI
55	Domark 6A-309	T, B, Tr	6—3 5/16x5	31.5	84–2500	309.0	4.90	210–1500	1	Se	I	2112	1.59	1.31	.375	.375	.375	.375	30	HI
56	Domark 6AH (5) 377	T, B, Tr	6—4x5	38.4	104–2500	377.0	4.90	250–1500	1	Se	I	2112	1.75	1.43	.375	.375	.375	.375	30	HI
57	Domark 6A-377	T, B, Tr	6—4x5	38.4	104–2500	377.0	4.90	250–1500	1	Se	I	2112	1.75	1.43	.375	.375	.375	.375	30	HI
58	Domark 6AH (5) 400	T, B, Tr	6—4 1/16x5	40.8	110–2500	400.0	5.10	268–1500	1	Se	I	2112	1.75	1.43	.375	.375	.375	.375	30	HI
59	Domark 6A-400	T, B, Tr	6—4 1/16x5	40.8	110–2500	400.0	5.10	268–1500	1	Se	I	2112	1.75	1.43	.375	.375	.375	.375	30	HI
60	Elco F-42	M	4—5x6	40.0	90–1600	471.0	5.00	325–1050	2	Se	F	Sil	2.50	2.50	.303	.350	.437	.437	45	HI
61	Elco F-6	M	6—4 3/4x6	54.1	120–1600	638.0	4.71	431–1000	2	Se	F	Sil	2.50	2.50	.303	.350	.437	.437	45	HI
62	Elco F-62	M	6—5x6	60.0	145–1600	707.0	5.00	490–1050	2	Se	F	Sil	2.50	2.50	.303	.350	.437	.437	45	HI
63	Fay & Bowen Rocket	M	4—2 7/16x3 1/2	13.2	35–3200	90.0			4	In	I	CNS								Ch
64	Fay & Bowen Gobest LN-403	M	4—3x4	14.4	20–1800	113.0			4	In	L	CNS								Ch
65	Fay & Bowen LC-41	M	4—3 1/16x4 1/2	19.6	27–1600	173.0			4	In	L	CNS								Ch
66	Fay & Bowen LN-43	M	4—4 3/16x5 1/2	36.1	40–1000	398.8			4	Se	L	CNS								Ch
67	Fay & Bowen LNS-43	M	4—4 3/16x5 1/2	36.1	60–1400	398.8			4	Se	L	CNS								Ch
68	Fay & Bowen Challenger	M	6—3 5/16x4	27.3	60–2800	215.0			6	Se	L	CNS								Ch
69	Fay & Bowen LC-61	M	6—3 1/16x4 1/2	29.4	55–2000	259.7			6	In	L	CNS								Ch
70	Fay & Bowen B	M	6—3 3/4x5	33.7	70–2200	331.5			6	Se	L	CNS								Ch
71	Fay & Bowen Conqueror	M	6—4 1/16x4 3/4	48.6	100–2100	453.0			2	Se	L	CNS								Ch
72	Ford V-60	T	8—2.60x3.20	21.6	60–3500	136.0	6.75	94–2500	8	In	L	CNA	1.28	1.28	.251	.251	.279	.279	45	HI
73	Ford V-85	T	8—3.06x3.75	30.0	85–3800	221.0	....	149–2000	8	In	L	CNA	1.53	1.53	.292	.292	.310	.310	45	HI
74	Hall-Scott Fisher Jr. 178, 9	M	4—4 1/16x5 1/2	28.9	70–1800	312.0	4.03	213–1300	4	Se	I	Sil	1.93	1.93	.343	.343	.437	.437	45	HI
75	Hall-Scott 165	T, B	4—4 1/16x5 1/2	28.9	72–2000	312.0	4.40	220–1100	4	Se	I	Sil	1.93	1.90	.343	.343	.437	.437	45	HC
76	Hall-Scott 167	T, B	4—4 3/16x5 1/2	36.1	80–2000	390.0	4.40	265–1000	4	Se	I	Sil	2.06	2.03	.343	.343	.437	.437	45	Ch
77	Hall-Scott 147	T, B	6—4x5	38.4	93–2200	377.0	4.90	265–1000	6	Se	I	Sil	1.93	1.93	.312	.312	.437	.437	45	HC
78	Hall-Scott (6) 130	T, B	6—4 1/16x5	43.3	124–2800	425.6	5.30	310–1000	6	In	I	Spec	2.12	1.87	.421	.421	.437	.437	30	Ch
79	Hall-Scott 155	T, B	6—4 1/16x5 1/2	43.3	94–2000	468.0	4.74	296–1000	6	Se	I	Sil	1.93	1.93	.312	.312	.437	.437	45	HC
80	Hall-Scott Navigator I 116, 17	M	6—4 1/16x5 1/2	43.3	103–1800	468.0	4.74	333–1200	6	Se	I	AESW	1.93	1.93	.312	.312	.437	.437	45	HC
81	Hall-Scott Navigator II 163, 4	M	6—4 1/16x5 1/2	43.3	107–2000	468.0	4.43	319–1200	6	Se	I	AESW	2.06	2.06	.328	.328	.437	.437	45	HC
82	Hall-Scott 160	T, B	6—4 1/16x5 1/2	43.3	117–2200	468.0	4.40	335–1400	6	Se	I	Sil	2.06	2.06	.343	.343	.437	.437	45	HC
83	Hall-Scott 160-1	T, B	6—4 1/16x5 1/2	43.3	108–2200	468.0	4.70	310–1200	6	Se	I	Sil	1.93	1.93	.312	.312	.437	.437	45	HC
84	Hall-Scott (6) 135	T, B	6—4 1/2x5	48.6	135–2800	477.1	5.26	335–1000	6	In	I	Spec	2.12	1.87	.421	.421	.437	.437	30	Ch
85	Hall-Scott (6) 180	T, B	6—5x6	60.0	184–2200	706.8	4.75	495–1200	6	In	I	Spec	2.62	2.28	.482	.482	.500	.531	30	Ch
86	Hall-Scott 175-1	T, B	6—5x6	60.0	186–2000	706.8	5.00	570–1100	6	Se	I	Spec	2.31	2.31	.406	.343	.437	.437	(h)	HC
87	Hall-Scott 176	T, B	6—5 1/4x6	66.1	191–1800	779.3	5.00	630–1100	6	Se	I	Spec	2.31	2.31	.406	.343	.437	.437	(h)	HC
88	Hall-Scott Explorer 132, 33, 157, 8	M	6—5x7	60.0	190–1800	825.0	4.85	593–1400	6	Se	I	AESW	2.50	2.50	.406	.406	.437	.437	30	Ch
89	Hall-Scott 177	T, B	6—5 1/2x6	72.6	203–1800	855.2	5.00	690–1100	6	Se	I	Spec	2.31	2.31	.406	.343	.312	.312	(h)	HC
90	Hall-Scott Invader 168, 9	M	6—5 1/2x7	72.6	265–2100	997.8	5.07	754–1400	6	In	I	AESW	2.62	2.62	.484	.484	.500	.531	30	Ch
91	Hercules ZXA	Tr, Ind	4—2 1/2x3	10.0	22.5–3600	58.8	6.10	40–2000	4	In	L	Sil	1.00	.875	.200	.200	.248	.248	30	HI
92	Hercules ZXB	Tr, Ind	4—2 5/8x3	11.0	24.8–3600	64.9	6.10	44–2000	4	In	L	Sil	1.00	.875	.200	.200	.248	.248	30	HI
93	Hercules IX	T, Tr, Ind	4—2 1/2x4	10.0	28–3200	78.0	5.20	54.5–2000	4	In	L	Sil	1.25	1.12	.250	.250	.310	.310	30	HI
94	Hercules IXA	T, Tr, Ind	4—3x4	14.4	40–3200	113.0	5.50	78–2000	4	In	L	Sil	1.25	1.12	.250	.250	.310	.310	30	HI
95	Hercules IXB	T, Tr, Ind	4—3 1/4x4	16.9	46.5–3200	133.0	5.20	92–2000	4	In	L	Sil	1.25	1.12	.250	.250	.310	.310	30	HI

(For abbreviations see page 327)

COMMERCIAL VEHICLE ENGINES—*Continued*

Material	PISTONS: Length (Ins.)	PISTONS: Weight (with Pins, Rings, and Bushing)—Ozs.	PISTONS: Piston Pin—Diameter and Length (Ins.)	Number of Rings per Piston	CONNECTING RODS: Material	CONNECTING RODS: Center to Center Length (Ins.)	CONNECTING RODS: Weight—with Bushing and Cap (Ozs.)	CRANKSHAFT: Material	CRANKSHAFT: Offset	CRANKSHAFT: Counterbalances Used	CRANKSHAFT: Crank-pin Diameter and Length (Ins.)	CRANKSHAFT: Main Bearings Number	CRANKSHAFT: Main Bearings Diameter and Length (Ins.) Front	CRANKSHAFT: Main Bearings Diameter and Length (Ins.) Rear	Oil Pressure to	SPARK PLUG: Recommended Make	SPARK PLUG: Thread Size	CARBURETOR: Make	CARBURETOR: Size	Adopted for use of Kerosene or Distillate	Weight (without Carburetor or Ignition)—Lbs.	OVERALL DIMENSIONS (Ins.): Width	OVERALL DIMENSIONS (Ins.): Height	OVERALL DIMENSIONS (Ins.): Length	Bell Housing Provided S.A.E. Numbers	Line Number
Als	5.87	.....	1.37x4.25	4	1045	11.25	.....	1045	N	Y	3.00x2.00	3	3.00x3.75	3.00x3.56	abc	CH	18 mm.	Hol	2(D)†	No	1660	34	41	62½	RGP	1
Al	.....	.....	.....	...	AS	.....	.....	CNS	....	Y	.....	4	2.25x.....	2.25x.....	ace	CH	18 mm.	Zen	1¼†	No	665§	.....	.....	43	.....	2
Al	.....	.....	.....	...	AS	.....	.....	CNS	....	Y	.....	4	2.25x.....	2.25x.....	ace	CH	18 mm.	Zen	1¼†	No	760§	.....	.....	51¹¹⁄₁₆	.....	3
Al	.....	.....	.....	...	AS	.....	.....	CNS	....	Y	.....	4	2.25x.....	2.25x.....	ace	CH	18 mm.	Zen	1¼†	No	775§	.....	.....	52½	.....	4
Al	.....	.....	.....	...	AS	.....	.....	CNS	....	Y	.....	4	2.50x.....	2.50x.....	ace	CH	18 mm.	Zen	1½†	No	745§	.....	.....	45	.....	5
Al	.....	.....	.....	...	AS	.....	.....	CNS	....	Y	.....	4	2.50x.....	2.50x.....	ace	CH	18 mm.	Zen	1½†	No	845§	.....	.....	53¹¹⁄₁₆	.....	6
Al	.....	.....	.....	...	AS	.....	.....	CNS	....	Y	.....	4	2.50x.....	2.50x.....	ace	CH	18 mm.	Zen	1½†	No	860§	.....	.....	54½	.....	7
Al	.....	.....	.....	...	AS	.....	.....	CNS	....	Y	.859x.....	5	2.68x.....	2.68x.....	ace	CH	18 mm.	Zen	1¼(2)†	No	990§	.....	.....	54⅝	.....	8
Al	.....	.....	.....	...	AS	.....	.....	CNS	....	Y	.859x.....	5	2.68x.....	2.68x.....	ace	CH	18 mm.	Zen	1¼(2)†	No	1140§	.....	.....	64⅞	.....	9
Al	.....	.....	.....	...	AS	.....	.....	CNS	....	Y	.859x.....	5	2.68x.....	2.68x.....	ace	CH	18 mm.	Zen	1¼(2)†	No	1150§	.....	.....	65⅝	.....	10
Al	.....	.....	.....	...	AS	.....	.....	CNS	....	Y	.859x.....	9	2.75x.....	2.75x.....	ace	CH	18 mm.	Zen	1½(2)†	No	1230§	.....	.....	59⅛	.....	11
Al	.....	.....	.....	...	AS	.....	.....	CNS	....	Y	.859x.....	9	2.75x.....	2.75x.....	ace	CH	18 mm.	Zen	1½(2)†	No	1380§	.....	.....	69½	.....	12
Cl	4.75	70.0	1.31x3.87	4	CS	10.50	167.0	CS	...	N	2.37x2.12	3	2.37x2.37	....x2.37	abcdeg	CH	⅞–18	Zen	1¼	D	825	25¾	37	41¼	2	14
Cl	4.75	80.0	1.31x4.12	4	CS	10.50	167.0	CS	N	N	2.37x2.12	3	2.37x2.37	....x2.37	abcdeg	CH	⅞–18	Zen	1¼	D	825	25¾	37	41¼	2	15
Cl	4.75	86.0	1.31x4.25	4	CS	10.50	167.0	CS	N	N	2.37x2.12	3	2.37x2.37	....x2.37	abcdeg	CH	⅞–18	Zen	1¼	D	825	25¾	37	41¼	2	16
Cl	5.87	120.0	1.50x4.00	4	CS	11.75	139.0	CS	N	N	2.75x2.50	3	3.00x3.00	....x3.00	abcdeg	CH	⅞–18	Zen	1½	D	1350	28¾	43	47¾	1	17
Cl	5.87	142.0	1.50x4.31	4	CS	11.75	139.0	CS	N	N	2.75x2.50	3	3.00x3.00	....x3.00	abcdeg	CH	⅞–18	Zen	1½	D	1350	28¾	42⅝	47¾	1	18
Cl	6.75	162.0	1.48x4.75	4	CS	14.00	194.0	CS	N	N	3.00x3.00	3	3.25x3.25	....x3.25	abceg	CH	⅞–18	Zen	1¾	D	1800	30½	45½	53¼	1	19
Cl	6.75	189.0	1.48x5.25	4	CS	14.00	194.0	CS	N	...	3.00x3.00	3	3.25x3.25	3.25x.....	abceg	CH	⅞–18	Zen	1¾	D	1800	30½	46	53¼	1	20
Cl	7.00	168.0	1.50x5.18	4	CS	14.00	179.0	CNS	N	N	2.50x3.50	3	2.50x2.50	....x2.50	abce	CH	⅞–18	Zen	1¾	No	1550	26	43⅝	55⅝	1	21
Cl	6.94	210.0	1.48x5.37	4	CS	16.00	244.0	CNS	N	N	3.00x3.50	3	3.25x3.25	....x3.25	abce	CH	⅞–18	Zen	2	No	2000	30⅛	46½	57⅛	1, 0	22
Cl	2.87	.....	.703x2.43	3	CS	5.75	.....	CS	N	N	1.50x1.18	3	1.75x1.39	1.75x1.78	abcef	Opt	18 mm.	Zen	⅞	.....	.....	15	18	26⅞	5	23
Cl	3.75	.....	.859x2.87	3	CS	7.00	.....	CS	N	N	1.75x1.37	3	1.75x1.39	1.75x1.56	abcef	Opt	18 mm.	Zen	⅞	.....	.....	15	18	26⅞	5	24
Cl	3.56	.....	.859x2.50	4	CS	7.00	26.0	CS	...	N	1.94x1.31	4	2.25x1.25	2.25x1.69	abc	Opt	18 mm.	Opt	1¼	No	267	19⁵⁄₃₂	26½	29⅝	4	25
Cl	3.56	.....	.859x2.62	4	CS	7.00	26.0	CS	...	...	1.94x1.31	4	2.25x1.25	2.25x1.69	abc	Opt	14 mm.	Opt	1¼	No	.....	18	27½	28½	.....	26
Cl	3.75	.....	.859x2.87	3	CS	8.37	.....	CS	N	N	1.75x1.37	3	1.75x1.39	1.75x1.56	abc	Opt	18 mm.	Opt	1¼	No	.....	18	27½	28½	.....	27
Cl	3.56	.....	.859x2.62	4	CS	7.00	26.0	CS	N	N	1.94x1.31	4	2.25x1.25	2.25x1.69	abc	Opt	18 mm.	Opt	1¼	No	267	19⁵⁄₃₂	26½	29⅝	4	28
Cl	3.75	.....	.859x2.62	4	CS	7.00	26.0	CS	N	Y	1.94x1.31	4	2.25x1.25	2.25x1.69	abc	Opt	14 mm.	Opt	1¼	No	.....	18	27½	28½	Opt	29
Cl	3.56	.....	.859x2.62	4	CS	7.00	26.0	CS	N	Y	1.94x1.31	4	2.25x1.25	2.25x1.69	abc	Opt	18 mm.	Opt	1¼	No	.....	18⅛	27½	36⅝	No	30
Cl	3.56	.....	.859x2.62	4	CS	7.00	26.0	CS	N	Y	1.94x1.31	4	2.25x1.25	2.25x1.69	abc	Opt	18 mm.	Opt	1¼	K	.....	17⅜	25⅜	31½	Opt	31
Cl	3.56	.....	.859x2.62	4	CS	7.00	26.0	CS	N	Y	1.94x1.31	4	2.25x1.25	2.25x1.69	abc	Opt	18 mm.	Opt	1¼	K	.....	17⅜	25⅜	31½	Opt	32
Cl	3.56	.....	.859x2.62	4	CS	7.00	26.0	CS	N	Y	1.94x1.31	4	2.25x1.25	2.25x1.69	abc	Opt	18 mm.	Opt	1¼	K	.....	17⅜	25⅜	31½	Opt	33
Cl	3.56	.....	.859x2.62	4	CS	7.00	26.0	CS	N	Y	1.94x1.31	4	2.25x1.25	2.25x1.69	abc	Opt	18 mm.	Opt	1¼	K	.....	17⅜	25⅜	31½	Opt	34
Cl	3.56	.....	.859x2.62	4	CS	7.00	26.0	CS	N	Y	1.94x1.31	4	2.25x1.25	2.25x1.69	abc	Opt	18 mm.	Opt	1¼	K	.....	17⅜	25⅜	31½	Opt	35
Cl	3.56	.....	.859x2.62	4	CS	7.00	26.0	CS	N	Y	1.94x1.31	4	2.25x1.25	2.25x1.69	abc	Opt	18 mm.	Opt	1¼	No	.....	18⅛	27½	36⅝	Opt	36
Cl	3.56	.....	.859x2.62	4	CS	7.00	26.0	CS	N	Y	1.94x1.31	4	2.25x1.25	2.25x1.69	abc	Opt	18 mm.	Opt	1¼	K	.....	17⅜	25⅜	31½	Opt	37
Cl	3.56	.....	.859x2.62	4	CS	7.00	26.0	CS	N	Y	1.94x1.31	4	2.25x1.25	2.25x1.69	abc	Opt	18 mm.	Opt	1¼	K	.....	17⅜	25⅜	31½	Opt	38
Cl	3.56	.....	.859x2.62	4	CS	7.00	26.0	CS	N	Y	1.94x1.31	4	2.25x1.25	2.25x1.69	abc	Opt	18 mm.	Opt	1¼	No	.....	18⅛	27½	36⅝	Opt	39
Cl	3.56	.....	.859x2.62	4	CS	7.00	26.0	CS	N	Y	1.94x1.31	4	2.25x1.25	2.25x1.69	abc	Opt	18 mm.	Opt	1¼	K	.....	17⅜	25⅜	31½	Opt	40
Al	3.94	.....	.859x2.87	4	CS	8.37	.....	CS	N	Y	2.00x1.37	4	2.37x1.44	2.37x1.87	abc	Opt	18 mm.	Opt	1¼	No	.....	18⅛	27½	36⅝	Opt	41
Al	3.94	.....	.859x2.87	4	CS	8.37	.....	CS	N	Y	2.00x1.37	4	2.37x1.44	2.37x1.87	abc	Opt	18 mm.	Opt	1½	.....	.....	26¾	29½	38¹¹⁄₁₆	Opt	42
CNl	5.31	.....	1.25x3.09	4	CS	9.00	.....	CS	N	N	2.37x1.81	7	2.62x1.66	2.62x2.50	abce	Opt	18 mm.	Opt	1½	No	.....	26¾	29½	38¹¹⁄₁₆	Opt	43
CNl	5.31	.....	1.25x3.09	4	CS	9.00	.....	CS	N	N	2.37x1.81	7	2.62x1.66	2.62x2.50	abce	Opt	18 mm.	Opt	1½	No	903	26¾	33⅝	44¹¹⁄₁₆	3, 2	44
CNl	5.31	.....	1.25x3.44	4	CS	9.00	.....	CS	N	N	2.37x1.81	7	2.62x1.66	2.62x2.50	abce	Opt	18 mm.	Opt	1½	No	906	26¾	33⅝	44¹¹⁄₁₆	3, 2	45
CNl	5.31	.....	1.25x3.44	4	CS	9.00	.....	CS	N	N	2.37x1.81	7	2.62x1.66	2.62x2.50	abce	Opt	18 mm.	Opt	1½	No	917	26¾	33⅝	44¹¹⁄₁₆	3, 2	46
Al	5.31	.....	1.25x3.44	4	CS	9.50	.....	CV	N	N	2.50x1.81	7	2.75x1.75	2.75x2.62	abce	Opt	18 mm.	Opt	1½	No	895	26¾	33⅝	44¹¹⁄₁₆	3, 2	47
Al	5.31	.....	1.25x3.69	4	CS	9.50	.....	CV	N	N	2.50x1.81	7	2.75x1.75	2.75x2.62	abce	Opt	18 mm.	Opt	1¾	K	1189	25¾	36⅞	55⅝	2, 3	48
Al	5.94	.....	1.50x3.72	4	CS	10.50	.....	CV	N	Y	2.75x1.81	7	2.75x1.75	2.75x2.62	abce	Opt	18 mm.	Opt	1¾	K	1334	26⅝	39⅛	55⅝	2, 3	50
SS	6.25	127.0	1.37x4.37	5	CS	13.25	148.0	NS	N	N	2.37x3.00	3	2.62x2.87	2.62x4.00	abcdeg	CH	⅞–18	Zen	1½	No	1150	27	39	46½	2	51
SS	6.56	130.0	1.37x4.37	5	CS	13.25	148.0	NS	N	N	2.37x3.00	3	2.62x2.87	2.62x4.00	abcdeg	CH	⅞–18	Zen	1½	No	1175*	27	39	46½	2	52
SS	6.56	127.0	1.37x4.81	5	CS	13.25	148.0	NS	N	...	2.37x3.00	3	2.50x2.87	2.50x4.00	abcdeg	CH	⅞–18	Zen	1¾	No	1150	27	39	46½	2	53
Ala	4.37	36.0	1.25x3.12	4	CS	9.50	54.0	CS	N	Y	2.37x1.75	7	2.70x2.25	2.70x2.87	abcdeg	CH	18 mm.	Opt	1½†	No	1222*	40¼	27¾	44	2, 3	54
Ala	4.37	36.0	1.25x3.12	4	CS	9.50	54.0	CS	N	Y	2.37x1.75	7	2.70x2.25	2.70x2.87	abcdeg	CH	18 mm.	Opt	1½†	No	1062	24½	37¼	44	2, 3	55
Ala	4.37	36.0	1.25x3.12	4	CS	9.50	54.0	CS	N	Y	2.37x1.75	7	2.70x2.25	2.70x2.87	abcdeg	CH	18 mm.	Opt	1½†	No	1247*	40¼	27¾	44	2, 3	56
Ala	4.37	36.0	1.25x3.12	4	CS	9.50	54.0	CS	N	Y	2.37x1.75	7	2.70x2.25	2.70x2.87	abcdeg	CH	18 mm.	Opt	1½†	No	1087*	24½	37¼	44	2, 3	57
Ala	4.37	36.0	1.25x3.12	4	CS	9.50	54.0	CS	N	Y	2.37x1.75	7	2.70x2.25	2.70x2.87	abcdeg	CH	18 mm.	Opt	1½†	No	1247*	40¼	27¾	44 ¶	2, 3	58
Als	6.12	77.0	1.37x4.17	4	CS	12.75	132.0	CNS	...	Y	2.37x3.00	3	2.62x3.31	2.62x4.00	abcdeg	CH	18 mm.	Opt	1½†	No	1087	24½	37¼	44	2, 3	59
Als	6.12	77.0	1.37x4.00	4	CS	12.75	132.0	CNS	...	Y	2.37x3.00	4	2.62x3.31	2.62x4.00	abcdeg	AC	⅞–18	Zen	1½†	No	1450	27	37¹¹⁄₁₆	70⅛	.....	60
Ala	6.12	77.0	1.37x4.17	4	CS	12.75	132.0	CNS	...	Y	2.37x3.00	4	2.62x3.31	2.62x4.00	abcdeg	AC	⅞–18	Str	1½	No	1750	27	37¹¹⁄₁₆	85⅛	.....	61
Spe	.....	.....	.....	...	AS	.....	.....	NS	.....	.....	.....	.....	.....	.....	ace	CH	.....	Str	1⅛†	No	1900	27	37¹¹⁄₁₆	87⅝	.....	62
Cl	.....	.....	.....	...	AS	.....	.....	NS	.....	.....	.....	.....	.....	.....	ace	CH	.....	.....	.....	.....	195	.....	.....	.....	RGP	63
Cl	.....	.....	.....	...	AS	.....	.....	NS	.....	.....	.....	.....	.....	.....	ace	CH	.....	.....	.....	.....	365	.....	.....	.....	RGP	64
Cl	.....	.....	.....	...	AS	.....	.....	NS	.....	.....	.....	.....	.....	.....	ace	CH	.....	.....	.....	.....	560	.....	.....	.....	RGP	65
Spe	.....	.....	.....	...	AS	.....	.....	NS	.....	.....	.....	.....	.....	.....	ace	CH	.....	.....	.....	.....	950	.....	.....	.....	RGP	66
Spe	.....	.....	.....	...	AS	.....	.....	NS	.....	.....	.....	.....	.....	.....	ace	CH	.....	.....	.....	.....	1400	.....	.....	.....	RGP	67
Cl	.....	.....	.....	...	AS	.....	.....	NS	.....	.....	.....	.....	.....	.....	ace	CH	.....	.....	.....	.....	2000	.....	.....	.....	RGP	68
Spe	.....	.....	.....	...	AS	.....	.....	NS	.....	.....	.....	.....	.....	.....	ace	CH	.....	.....	.....	.....	845	.....	.....	.....	RGP	69
Cl	.....	.....	.....	...	AS	.....	.....	NS	.....	.....	.....	.....	.....	.....	ace	CH	.....	.....	.....	.....	2200	.....	.....	.....	RGP	70
AS	.....	8.11	.687x2.36	3	MS	6.12	9.52	CAS	...	Y	1.60x1.54	3	2.00x1.66	2.00x2.00	abc	CH	.....	.....	.....	.....	2100	.....	.....	.....	RGP	71
AS	.....	10.62	.750x2.85	3	CMS	7.00	16.54	CAS	...	Y	2.00x1.93	3	2.40x1.56	2.40x2.25	abc	CH	14 mm.	Str	.78(D)	No	400*	24¾	32⁹⁄₁₆	43⅛*	.....	72
Ala	5.03	57.0	1.25x3.25	6	AS	11.00	103.0	CNS	N	N	2.25x2.00	3	2.75x2.31	2.75x2.31	abce	CH	18 mm.	Str	.97(D)	No	562*	23¹⁵⁄₁₆	31¼	42⅝*	.....	73
Ala	5.21	57.0	1.25x3.25	6	AS	11.00	103.0	CNS	N	N	2.25x2.00	3	2.75x2.31	2.75x2.31	abce	CH	18 mm.	Zen	1¼†	D	1905	24⅝	41⅝	76⅛	RGP	74
Ala	5.20	74.5	1.25x3.75	6	AS	11.00	100.0	CNS	N	N	2.37x2.00	3	3.00x2.31	3.00x2.31	abce	CH	⅞–18	Zen	1½	D	1160§	27¼	40½	46¹¹⁄₁₆	2	75
Ala	4.50	40.7	1.00x3.43	4	AS	11.00	75.0	Mo	N	N	2.25x1.43	4	2.75x2.68	2.75x2.68	abcefg	CH	18 mm.	Zen	1½	D	1160§	27¼	40¾	49⅛	2	76
Ala	5.28	.....	1.12x3.75	5	AS	11.00	83.0	Mo	5⁄₁₆	Y	2.62x1.75	7	3.00x1.50	3.00x2.25	abcefg	CH	18 mm.	Zen	1¾	No	1252§	54¾	18⅞	49⅛	3	77
Ala	4.56	52.0	1.25x3.34	6	AS	11.00	102.0	CNS	N	N	2.25x2.00	4	2.75x2.18	2.75x3.18	abcefg	CH	18 mm.	Zen	1¾	No	1252§	54¾	18⅞	52	3	78
Ala	4.56	52.0	1.25x3.59	6	AS	11.00	104.0	Mo	N	N	2.25x2.00	4	2.75x2.18	2.75x3.18	abce	CH	18 mm.	Zen	1¾	No	1310§	30½	39⅛	54⅛	3	79
Ala	5.26	56.0	1.25x3.34	5	AS	11.00	101.0	Mo	N	Y	2.37x2.00	4	2.75x2.18	2.75x3.18	abce	CH	18 mm.	Zen	1¾†	No	2120§	23	42	99⅛	RGP	80
Ala	5.26	60.0	1.25x3.34	5	AS	11.00	101.0	Mo	N	Y	2.37x2.00	4	2.75x2.18	2.75x3.18	abce	CH	18 mm.	Zen	(2)1½†	No	2392§	27⅛	48½	90⅝	RGP	81
Ala	5.21	58.5	1.25x3.25	5	AS	11.00	102.0	CNS	N	Y	2.37x2.00	4	2.75x2.18	2.75x3.18	abcefg	CH	18 mm.	Zen	1¾	No	1407§	29¹³⁄₁₆	46⅛	55⅞	3	82
Ala	5.14	.....	1.12x4.00	5	AS	11.00	83.0	Mo	5⁄₁₆	Y	2.62x1.75	7	3.00x1.50	3.00x2.25	abcefg	CH	18 mm.	Zen	1¾	No	1310§	31⅞	42⅝	55⅞	3	83
Ala	5.89	91.5	1.37x3.81	5	AS	11.00	103.5	Mo	N	Y	2.75x2.00	7	3.25x2.18	3.25x2.56	abcefg	CH	18 mm.	Zen	1¾	No	1285§	54¾	18⅞	52	3	84
Ala	5.93	98.0	1.37x3.81	5	AS	11.00	113.5	Mo	N	Y	2.50x2.00	7	3.25x1.43	3.25x2.43	abcefg	CH	18 mm.	Zen	2	No	1980§	52¾	20¹¹⁄₁₆	67¹⁵⁄₁₆*	2	85
Ala	5.87	.....	1.37x4.06	5	AS	11.00	113.5	Mo	N	Y	2.50x2.00	7	3.25x1.43	3.25x2.43	abcefg	CH	18 mm.	Zen	2	No	1830§	32¹⁵⁄₁₆	44¹⁵⁄₁₆	58⅞*	2	86
Ala	4.92	78.5	1.25x4.00	5	AS	11.00	97.5	Mo	N	Y	2.37x2.00	7	2.75x2.43	2.75x4.56	abce	CH	18 mm.	Zen	2	No	1830§	32¹⁵⁄₁₆	44¹⁵⁄₁₆	58⅞ ¶	2	87
Ala	5.96	.....	1.37x4.68	6	AS	11.00	113.5	Mo	N	Y	2.50x2.00	7	3.25x1.43	3.25x2.43	abcefg	CH	18 mm.	Zen	2†	No	2820§	31½	42	90⅝ ¶	RGP	88
Ala	5.46	94.5	1.37x4.40	4	AS	11.00	114.5	Mo	N	Y	2.50x2.12	7	2.75x1.93	2.75x1.93	abce	CH	18 mm.	Zen	2	No	1830§	32¹⁵⁄₁₆	44⅝	58⅞	2	89
Cl	2.68	17.5	.687x2.18	3	3140	5.12	15.5	1045	N	N	1.50x1.00	3	2.00x1.31	2.00x1.37	abce	Opt	14 mm.	Opt	.....	Yes	179	14¾	16⅝	21⅝	RGP	90
Cl	2.68	19.0	.687x2.18	3	3140	5.12	15.5	1045	N	N	1.50x1.00	3	2.00x1.31	2.00x1.37	abce	Opt	14 mm.	Opt	.....	Yes	179	14¾	16⅝	21⅝	5, 6	91
Cl	2.43	18.0	.750x2.18	3	3140	6.56	21.0	1045	N	N	1.75x1.12	3	2.00x1.56	2.00x1.62	abce	Opt	14 mm.	Opt	.....	Yes	179	14¾	16⅝	21⅝	5, 6	92
Cl	3.06	22.0	.750x2.56	3	3140	6.56	21.0	1045	N	N	1.75x1.12	3	2.00x1.56	2.00x1.62	abce	Opt	18 mm.	Opt	.....	Yes	250	16⅛	18¾	24⅛	4, 5	93
Cl	3.06	29.5	.750x2.81	3	3140	6.56	21.0	1045	N	N	1.75x1.12	3	2.00x1.56	2.00x1.62	abce	Opt	⅞–18	Opt	.....	Yes	291	16⅛	18¾	24⅛	4, 5	95

(For abbreviations see page 327)

AMERICAN STOCK, MARINE AND

Line Number	MAKE AND MODEL	Designed for	Number of Cylinders, Bore and Stroke (Ins.)	Rated HP (A.M.A.)	Maximum Brake HP at Specified R.P.M.	Piston Displacement (Cu. Ins.)	Compression Ratio	Maximum Torque at R.P.M. (Lb. Ft.)	No. of Cylinders Cast in one piece	Crankcase—Upper Half Integral with Cylinders	VALVES								Front End Drive—Type
											Arrangement	Exhaust Head Material or S.A.E. No.	Clear Diameter (Ins.)		Lift (Ins.)		Stem Diameter (Ins.)		Seat Angle (Degrees)	
													Intake	Exhaust	Intake	Exhaust	Intake	Exhaust		
1	Hercules.....OOA	T, B, Tr, Ind	4—3½x4½	19.6	34.5-2000	173.2	4.20	107-1200	4	In	L	SII	1.50	1.37	.326	.326	.373	.373	45	HI
2	Hercules.....OOB	T, B, Tr, Ind	4—3¾x4½	22.5	38-2000	198.8	4.20	125-1000	4	In	L	SII	1.50	1.37	.326	.326	.373	.373	45	HI
3	Hercules.....OOC	T, B, Tr, Ind	4—4x4½	25.6	41-2000	226.2	4.20	143-1000	4	In	L	SII	1.50	1.37	.326	.326	.373	.373	45	HI
4	Hercules.....OX	T, B, Tr, Ind	4—4x5	25.6	46-....	251.3	4.30	155-1000	4	In	L	SII	1.81	1.81	.326	.326	.373	.373	45	HI
5	Hercules.....OXC	T, B, Tr, Ind	4—4¼x5	28.9	56-....	283.5	4.30	185-1000	4	In	L	SII	1.81	1.81	.326	.326	.373	.373	45	HI
6	Hercules.....K	T, Tr, Ind	4—4¼x5¾	28.9	54.5-....	326.3	3.89	202-1000	4	In	L	SII	2.00	2.00	.326	.326	.434	.434	45	HI
7	Hercules.....L	T, Tr, Ind	4—4½x5¾	32.4	59-....	365.8	3.78	226-1000	4	In	L	SII	2.00	2.00	.326	.326	.434	.434	45	HI
8	Hercules.....G	T, Tr, Ind	4—4¾x5¾	36.1	62.5-....	407.6	3.89	250-1000	4	In	L	SII	2.00	2.00	.326	.326	.434	.434	45	HI
9	Hercules.....E	T, Tr, Ind	4—5x5¾	40.0	74-....	451.4	4.00	288-1000	4	In	L	SII	2.00	2.00	.326	.326	.434	.434	45	HI
10	Hercules.....TX	Ind	4—5½x7	48.4	88-....	665.0	3.84	425- 800	4	In	L	SII	2.50	2.50	.375	.375	.497	.497	45	HI
11	Hercules.....TXA	Ind	4—6x7	57.6	98-....	792.0	3.84	488- 800	4	In	L	SII	2.50	2.50	.375	.375	.497	.497	45	HI
12	Hercules.....TXO	Ind	4—6½x7	65.0	112-....	894.0	3.84	586- 800	4	In	L	SII	2.50	2.50	.375	.375	.497	.497	45	HI
13	Hercules.....QXA	T, B, Tr, Ind	6—3½x4½	23.4	55.5-....	190.0	5.50	130-1000	6	In	L	SII	1.31	1.12	.281	.281	.310	.310	30	HI
14	Hercules.....QXB	T, B, Tr, Ind	6—3¼x4½	25.3	61-....	205.0	5.50	135.5-1000	6	In	L	SII	1.31	1.12	.281	.281	.310	.310	30	HI
15	Hercules.....JXA	T, B, Tr, Ind	6—3½x4¼	27.3	59-2800	228.0	5.16	141-1000	6	In	L	SII	1.50	1.37	.322	.322	.373	.373	45	HI
16	Hercules.....JXB	T, B, Tr, Ind	6—3⅝x4¼	31.5	68-2800	263.0	5.40	163-1000	6	In	L	SII	1.50	1.37	.322	.322	.373	.373	45	HI
17	Hercules.....JXC	T, B, Tr, Ind	6—3¾x4¼	33.7	73-2800	282.0	5.35	175-1000	6	In	L	SII	1.50	1.37	.322	.322	.373	.373	45	HI
18	Hercules.....JXD	T, B, Tr, Ind	6—4x4¼	38.4	83-2800	320.0	5.63	204-1000	6	In	L	SII	1.50	1.37	.322	.322	.373	.373	45	HI
19	Hercules.....WXC	T, B, Tr, Ind	6—4x4½	38.4	90-2400	339.0	5.00	212-1000	6	In	L	SII	1.62	1.50	.356	.356	.373	.373	45	HI
20	Hercules.....WXC-2	T, B, Tr, Ind	6—4¼x4½	40.3	95-2400	360.8	5.00	233-1000	6	In	L	SII	1.62	1.50	.356	.356	.373	.373	45	HI
21	Hercules.....WXC-3	T, B, Tr, Ind	6—4¼x4½	43.3	101-2400	383.0	5.00	262-1000	6	In	L	SII	1.62	1.50	.356	.356	.373	.373	45	HI
22	Hercules.....YXC	T, B, Tr, Ind	6—4⅜x4¾	45.9	94-2200	428.4	4.40	281- 800	6	In	L	SII	1.75	1.75	.388	.388	.373	.373	45	HI
23	Hercules.....YXC2	T, B, Tr, Ind	6—4½x4¾	48.6	98-2200	453.0	4.77	300- 800	6	In	L	SII	1.75	1.75	.388	.388	.373	.373	45	HI
24	Hercules.....YXC3	T, B, Tr, Ind	6—4⅝x4¾	51.3	104-2200	478.8	4.40	320- 800	6	In	L	SII	1.75	1.75	.388	.388	.373	.373	45	HI
25	Hercules.....RXB	T, B, Tr, Ind	6—4½x5¼	48.6	110-2200	500.9	4.95	330-1000	6	In	L	SII	1.75	1.75	.388	.388	.373	.373	45	HI
26	Hercules.....RXC	T, B, Tr, Ind	6—4⅝x5¼	51.3	114-2200	529.2	4.95	350-1000	6	In	L	SII	1.75	1.75	.388	.388	.373	.373	45	HI
27	Hercules.....HXB	T, B, Tr, Ind	6—5x6	60.0	148-2000	707.0	4.50	455-1000	3	Se	L	SII	2.12	2.00	.468	.468	.498	.498	30	HI
28	Hercules.....HXC	T, B, Tr, Ind	6—5¼x6	66.2	164-2000	779.0	4.50	510-1000	3	Se	L	SII	2.12	2.00	.468	.468	.498	.498	30	HI
29	Hercules.....HXD	T, B, Tr, Ind	6—5½x6	72.8	180-2000	855.0	4.50	555-1000	3	Se	L	SII	2.12	2.00	.468	.468	.498	.498	30	HI
30	Hercules.....HXE	T, B, Tr, Ind	6—5¾x6	79.4	198-2000	935.0	4.50	615-1000	3	Se	L	SII	2.12	2.00	.468	.468	.498	.498	30	HI
31	International.....HD	T	6—3⅝x4⅛	26.3	78-3400	213.2	6.40	151-(p)	6	In	L	SII	1.68	1.46	.328	.328	.372	.371	45	Ch
32	International.....FAB-223	T	6—3½x4	28.3	78-3400	222.7	5.40	160-(r)	1	In	I	SII	1.56	1.46	.292	.292	.340	.340	45	HI
33	International.....FBB-279	T	6—3½x4½	31.5	82-2800	278.7	4.66	190-(s)	1	In	I	SII	1.87	1.75	.343	.343	.370	.370	45	HI
34	International.....FBB-298	T	6—3¾x4½	33.7	90-2800	298.2	5.70	213.5-800	1	In	....	SII	1.87	1.75	.343	.343	.370	.370	45	HI
35	International.....FDB	T	6—4½x5½	48.6	123-2200	524.8	4.50	358-1200	1	In	I	SII	2.37	2.37	.437	.437	.430	.430	45	HI
36	International.....FEB	T	6—5x5½	60.0	140-2100	648.0	4.40	460-1000	1	In	I	SII	2.37	2.37	.437	.437	.430	.430	....	HI
37	Kermath.....ZX	M	4—2⅝x3	11.03	25-3400	65.0	6.00	40-1700	4	In	L	SII	1.12	.875	.....	.....	.....	.....	30	HI
38	Kermath.....XL	M	4—3¼x4	16.9	33-2200	134.0	5.50	97-2200	4	In	L	SII	1.12	.....	.312	.....	.....	.....	....	HI
39	Kermath.....XH	M	4—3¼x4	16.9	50-3200	134.0	5.50	97-2200	4	In	L	SII	1.25	.....	.312	.....	.....	.....	....	HI
40	Kermath.....OOB	M	4—3½x4½	22.5	40-2000	198.0	4.70	122-1200	4	In	L	SII	1.50	.....	.326	.....	.....	.....	....	HI
41	Kermath.....20HP	M	4—4x4	25.6	20-1000	201.0	.....	.....	4	Se	L	CI	1.50	.....	.218	.....	.....	.....	....	Sp
42	Kermath.....OOC	M	4—4x4½	25.6	50-2000	226.0	4.70	142-1200	4	In	L	SII	1.50	.....	.326	.....	.....	.....	....	HI
43	Kermath.....F	M	4—4⅝x5½	30.6	55-1500	330.0	4.80	...-1000	4	Se	L	CNS	2.00	2.00	.375	.375	.375	.375	45	HI
44	Kermath.....QX	M	6—3¼x4½	25.3	85-3600	205.0	6.50	...-1600	6	In	L	SII	1.31	1.12	.312	.312	.312	.312	30	HI
45	Kermath.....QXC	M	6—3⅝x4⅛	27.3	90-3600	221.0	.....	.....	6	In	L	SII	1.46	1.25	.....	.....	.....	.....	....	HI
46	Kermath.....JXCL	M	6—3¾x4¼	33.7	80-2400	282.0	5.80	206-1300	6	In	L	SII	1.50	.....	.375	.....	.....	.....	....	HI
47	Kermath.....JXCH	M	6—3¾x4¼	33.7	102-3000	282.0	5.80	206-1300	6	In	L	SII	1.50	.....	.375	.....	.....	.....	....	HI
48	Kermath.....JXD	M	6—4x4¼	38.4	.....	320.0	5.80	.....	6	In	L	SII	1.50	.....	.375	.....	.....	.....	....	HI
49	Kermath.....WX	M	6—4¼x4½	43.3	115-2600	383.0	5.50	265-1000	3	In	L	SII	1.62	.....	.375	.....	.....	.....	....	HI
50	Kermath.....G	M	6—4⅝x5½	45.9	106-2000	495.0	5.30	.....	6	Se	L	CNS	2.25	2.00	.437	.375	.437	.375	(h)	HI
51	Kermath.....DL	M	6—4⅝x5¾	45.9	120-2000	519.0	5.70	.....	6	Se	L	SII	2.25	2.00	.437	.375	.437	.375	(h)	HI
52	Kermath.....DH	M	6—4⅝x5¾	45.9	150-2500	519.0	5.70	351-1000	6	Se	L	CNS	2.25	2.00	.437	.375	.437	.375	(h)	HI
53	Kermath.....L	M	6—5x5¾	60.0	158-1800	678.0	5.30	482-1000	6	Se	L	SII	2.37	2.25	.375	.375	.437	.437	45	HI
54	Kermath.....R	M	6—5x5¾	60.0	235-2400	678.0	5.30	550-1400	6	Se	....	CNS	1.75	1.75	.375	.375	.437	.437	45	SB
55	Kermath.....VFL	M	8—3⅛x3¾	29.9	85-3600	220.0	6.30	145-1800	8	In	L	SII	1.37	.....	.....	.....	.....	.....	....	HI
56	Kermath.....VFH	M	8—3⅛x3¾	29.9	90-3600	220.0	6.30	160-1800	8	In	L	SII	1.37	.....	.....	.....	.....	.....	....	HI
57	Kermath.....VZ	M	12—2¾x3¾	36.3	110-3800	267.0	6.70	186-2100	12	In	L	SII	1.53	1.68	.....	.....	.....	.....	....	HI
58	Kermath.....V	M	12—5x6	120.0	450-2200	1414.0	5.30	1190-1200	6	Se	I	CNS	1.75	1.75	.375	.375	.437	.437	45	SB
59	Lycoming.....4-58	M	4—3⅛x37/16	17.5	58-3400	133.5	6.50	.....	4	In	L	SII	1.54	1.42	.312	.312	.343	.343	30	HI
60	Lycoming.....AFE	T	4—3¾x4½	22.5	37-1600	198.8	4.82	134- 750	4	In	L	SII	1.50	1.37	.312	.312	.343	.343	45	HI
61	Lycoming.....WF	C	6—3½x4¾	22.5	82-3500	209.9	6.20	155-1800	6	In	L	SII	1.37	1.25	.312	.312	.343	.343	(h)	Ch
62	Lycoming.....6-85	M	6—3½x4¾	22.4	85-3000	209.9	6.70	.....	6	In	L	SII	1.56	1.40	.312	.312	.343	.343	(h)	HI
63	Lycoming.....6-105	M	6—3⅝x4¾	23.8	105-3400	222.9	6.70	.....	6	In	L	SII	1.56	1.40	.312	.312	.343	.343	(h)	HI
64	Lycoming.....ASE	T	6—3¾x4½	33.7	90-3100	298.2	5.26	205- 800	6	In	L	SII	1.75	1.62	.312	.312	.375	.375	(h)	HI
65	Lycoming.....GG	C	8—3½x4¾	30.0	113-3600	279.9	6.67	210-1800	8	In	L	SII	1.37	1.12	.312	.312	.343	.343	(h)	Ch
66	Lycoming.....GFD	C, Ta	8—3½x4¾	30.0	93-3400	279.9	5.30	183-1400	8	In	L	SII	1.37	1.25	.312	.312	.343	.343	(h)	Ch
67	Lycoming.....GH (7)	C	8—3½x4¾	30.0	148-4000	279.9	6.67	232-2400	8	In	L	SII	1.37	1.25	.312	.312	.343	.343	(h)	Ch
68	Lycoming.....8-125	M	8—3½x4¾	31.2	125-3400	291.4	6.70	.....	8	In	L	SII	1.93	1.40	.312	.312	.343	.343	(h)	HI
69	Lycoming.....FB	C	8—3½x3¾	39.2	115-3500	288.6	6.32	220-1600	8	In	L	SII	1.68	1.50	.343	.343	.343	.343	(h)	HC
70	Lycoming.....FC	C	8—3½x3¾	39.2	175-4200	288.6	6.32	258-2800	8	In	L	SII	1.68	1.50	.343	.343	.343	.343	(h)	HC
71	Lycoming.....8-165	M	8—3¾x4¾	45.0	165-3400	419.6	6.00	384-2000	8	In	L	SII	1.93	1.81	.343	.343	.375	.375	(h)	HI
72	Lycoming.....AEF	T, B	8—3¾x4½	45.0	120-2800	419.6	5.26	302-1200	8	In	L	SII	1.75	1.50	.343	.343	.375	.375	(h)	HI
73	Lycoming.....BB	C	12—3⅛x4¼	46.8	160-3500	391.2	5.75	286-1500	12	In	I	SII	1.37	1.37	.343	.343	.343	.343	30	Ch
74	Lycoming.....12-325	M	12—4¼x4¾	108.3	325-2500	1010.1	5.75	750-1600	1(8)	In	I	SII	2.21	2.09	.437	.437	.437	.437	30	Ch
75	Lycoming.....12-375	M	12—4¼x4¾	108.3	375-2750	1010.1	5.75	.....	1(8)	In	I	SII	2.21	2.09	.437	.437	.437	.437	30	Ch
76	Mack.....AC	T	4—5x6	40.0	74-1600	471.2	3.90	300- 800	4	Se	L	Sta	2.09	1.96	.437	.437	.500	.500	30	HI
77	M ck.....BG	T, B	6—3⅝x5	31.6	90-3000	309.6	5.40	202-1000	6	In	L	Sta	1.62	1.50	.365	.365	.375	.375	30	HI
78	Mack.....CU	T, B	6—3½x5	36.0	100-2800	353.8	5.40	237-1000	6	In	L	Sta	1.62	1.50	.365	.365	.375	.375	30	HI
79	Mack.....CE	T, B	6—4x5½	38.4	108-2400	414.6	5.00	270-1000	6	Se	L	Sta	1.81	1.68	.375	.375	.500	.500	30	HI
80	Mack.....CF	T, B	6—4¼x5½	43.3	118-2400	467.9	5.00	310-1000	6	Se	L	Sta	1.81	1.68	.375	.375	.500	.500	30	HI
81	Mack.....CT	T, B	6—4½x5½	48.6	126-2400	524.8	4.80	350-1000	6	Se	L	Sta	1.81	1.68	.375	.375	.500	.500	30	HI
82	Mack.....BQ	T	6—4¾x5¾	54.1	125-2200	610.8	4.75	390- 900	6	Se	L	Sta	1.84	1.71	.375	.375	.500	.500	30	HI
83	Mack.....AP	T	6—5x6	60.0	138-1900	706.5	[4.40	470- 800	6	Se	L	Sta	2.06	1.93	.437	.437	.500	.500	FI	HI
84	Midshipman.....III (9) L	M	4—3x3	14.4	28-2800	85.0	5.00	2800	2	Se	L	SII	1.31	1.31	.250	.250	.250	.250	45	Sp
85	Midshipman.....III (9) H	M	4—3x3	14.4	32-3200	85.0	6.50	3200	2	Se	T	SII	1.31	1.31	.250	.250	.250	.250	45	Sp
86	Minneapolis Moline.....JE	Tr	4—3⅝x4½	21.0	30-1275	196.0	4.33	 800	4	Se	(n)	CI	*1.62	1.50	.348	.306	.372	.372	30	HI
87	Minneapolis Moline.....KEA	Tr	4—4¼x5	28.9	41-1150	283.5	4.32	 800	4	Se	I	CNS	1.50	1.37	.488	.488	.372	.372	45	HI
88	Minneapolis Moline.....GE	Tr	4—4⅝x6	34.2	54-1075	403.2	4.20	 800	2	Se	I	CI	1.81	1.81	.405	.405	.497	.497	45	HI
89	Minneapolis Moline.....AE	Tr	4—5½x6¾	48.4	61- 900	641.4	4.00	 700	4	In	I	CNS	1.75	1.75	.441	.441	.496	.496	45	HI
90	M & T.....OC-4	M	4—6½x8	67.6	85-1000	1062.4	3.77	607- 600	2	Se	I	CNS	2.25	2.25	.500	.500	.437	.437	30	HI
91	M & T.....M-4	M	4—6½x8	67.6	90-1000	1062.4	4.20	661- 650	2	Se	I	SCN	2.25	2.25	.500	.500	.437	.437	30	HI
92	M & T.....K-6	M	6—6¼x7¾	93.7	325-1650	1426.6	5.20	1078-1650	3	Se	I	SCN	2.25	2.25	.375	.375	.437	.437	30	HI
93	M & T.....M-6	M	6—6½x8	101.4	175-1100	1593.6	4.20	950- 600	2	Se	I	SCN	2.25	2.25	.500	.500	.437	.437	30	HI
94	M & T.....OC-6	M	6—6½x8	101.4	140-1100	1593.6	3.77	870- 600	2	Se	I	SCN	2.25	2.25	.500	.500	.437	.437	30	HI
95	M & T.....OCX-6	M	6—7¼x8	126.1	175-1100	1981.0	4.00	1050- 900	2	Se	I	SCN	2.25	2.25	.593	.593	.437	.437	30	HI

(For abbreviations see page 327)

COMMERCIAL VEHICLE ENGINES—*Continued*

PISTONS					CONNECTING RODS			CRANKSHAFT									SPARK PLUG		CARBURETOR				OVERALL DIMENSIONS (Ins.)				
											Crank-pin	Main Bearings															
												Diameter and Length (Ins.)															
Material	Length (Ins.)	Weight (with Pins, Rings, and Bushing)—Ozs.	Piston Pin—Diameter and Length (Ins.)	Number of Rings per Piston	Material	Center to Center Length (Ins.)	Weight—with Bushing and Cap (Ozs.)	Material	Offset	Counterbalances Used	Diameter and Length (Ins.)	Number	Front	Rear	Oil Pressure to	Recommended Make	Thread Siz	Make	Size	Adopted for use of Kerosene or Distillate	Weight (without Carburetor or Ignition)—Lbs.	Width	Height	Length	Bell Housing Provided S.A.E. Numbers	Line Number
Cl	4.31	49.0	1.00x3.12	3	1035	8.00	37.5	1045	N	N	2.00x1.50	3	2.00x2.18	2.00x2.62	abce	Opt	⅞–18	Opt	.....	Yes	460	17½	23¼	29⅞	3, 4, 5	1
Cl	4.12	56.5	1.00x3.37	3	1035	8.00	37.5	1045	N	N	2.00x1.50	3	2.00x2.18	2.00x2.62	abce	Opt	⅞–18	Opt	.....	Yes	460	17½	23¼	29⅞	3, 4, 5	2
Cl	4.31	56.0	1.00x3.62	3	1035	8.00	37.5	1045	N	N	2.00x1.50	3	2.00x2.18	2.00x2.62	abce	Opt	⅞–18	Opt	.....	Yes	460	17½	23¼	29⅞	3, 4, 5	3
Cl	4.87	67.5	1.37x2.37	5	1035	9.50	58.5	1045	N	N	2.00x2.25	3	2.00x3.18	2.00x3.31	abce	Opt	⅞–18	Opt	.....	Yes	655	20$^{17}/_{32}$	27$^{17}/_{32}$	36$^{9}/_{32}$	2, 3	4
Cl	4.87	73.5	1.37x2.37	5	1035	9.50	58.5	1045	N	N	2.00x2.25	3	2.00x3.18	2.00x3.31	abce	Opt	⅞–18	Opt	.....	Yes	655	20$^{17}/_{32}$	27$^{17}/_{32}$	36$^{9}/_{32}$	2, 3	5
Cl	5.25	82.5	1.50x3.75	5	1035	10.87	83.0	1045	N	N	2.50x2.62	3	3.00x3.37	3.00x3.50	abce	Opt	⅞–18	Opt	.....	Yes	875	21$^{31}/_{32}$	30$^{1}/_{8}$	41$^{1}/_{16}$	1, 2	6
Cl	5.25	95.5	1.50x4.00	5	1035	10.87	83.0	1045	N	N	2.50x2.62	3	3.00x3.37	3.00x3.50	abce	Opt	⅞–18	Opt	.....	Yes	880	21$^{31}/_{32}$	30$^{1}/_{8}$	41$^{1}/_{16}$	1, 2	7
Cl	5.25	103.0	1.50x4.25	5	1035	10.87	83.0	1045	N	N	2.50x2.62	3	3.00x3.37	3.00x3.50	abce	Opt	⅞–18	Opt	.....	Yes	885	21$^{31}/_{32}$	30$^{1}/_{8}$	41$^{1}/_{16}$	1, 2	8
Cl	5.25	106.5	1.50x4.50	5	1035	10.87	83.0	1045	N	N	2.50x2.62	3	3.00x3.37	3.00x3.50	abce	Opt	⅞–18	Opt	.....	Yes	890	21$^{31}/_{32}$	30$^{7}/_{8}$	41$^{1}/_{16}$	1, 2	9
Cl	7.00	196.5	1.87x4.87	5	1035	13.25	178.0	1045	N	N	3.00x3.00	3	3.75x4.37	3.75x4.50	abce	Opt	⅞–18	Opt	.....	Yes	1800	26$^{15}/_{16}$	38	52½	1, 0	10
Cl	7.00	222.5	1.87x5.37	5	1035	13.25	178.0	1045	N	N	3.00x3.00	3	3.75x4.37	3.75x4.50	abce	Opt	⅞–18	Opt	.....	Yes	1815	26$^{15}/_{16}$	38	52½	1, 0	11
Cl	7.00	240.0	1.87x5.75	5	1035	13.25	178.0	1045	N	N	3.00x3.00	3	3.75x4.37	3.75x4.50	abce	Opt	⅞–18	Opt	.....	Yes	1850	26$^{15}/_{16}$	38	52½	1, 0	12
Cl	3.50	52.7	.875x2.67	4	1035	7.00	26.0	CS	N	Opt	1.98x1.02	7	2.50x1.39	2.50x1.93	abce	Opt	⅞–18	Opt	.....	Yes	480	21½	22$^{27}/_{32}$	33$^{7}/_{16}$	4, 5	13
Cl	3.50	52.7	.875x2.79	4	1035	7.00	26.0	CS	N	Opt	1.98x1.02	7	2.50x1.39	2.50x1.93	abce	Opt	⅞–18	Opt	.....	Yes	480	21½	22$^{27}/_{32}$	33$^{7}/_{16}$	4, 5	14
Cl	4.37	43.0	1.00x2.90	4	1035	8.00	37.5	1045	N	Opt	2.00x1.50	7	2.50x1.31	2.50x2.12	abce	Opt	⅞–18	Opt	.....	Yes	550	17⅝	23½	37⅜	3, 4, 5	15
Cl	4.18	48.0	1.00x3.15	4	1035	8.00	37.5	1045	N	Opt	2.00x1.50	7	2.50x1.31	2.50x2.12	abce	Opt	⅞–18	Opt	.....	Yes	560	17⅝	23½	37⅜	3, 4, 5	16
Cl	4.12	56.5	1.00x3.37	4	1035	8.00	37.5	1045	N	Opt	2.00x1.50	7	2.50x1.31	2.50x2.12	abce	Opt	⅞–18	Opt	.....	Yes	565	17⅝	23½	37⅜	3, 4, 5	17
Al	4.18	40.5	1.00x3.51	4	1035	8.00	37.5	1045	N	Opt	2.00x1.50	7	2.50x1.31	2.50x2.12	abce	Opt	⅞–18	Opt	.....	Yes	570	17⅝	23½	37⅜	3, 4, 5	18
Cl	4.56	64.5	1.12x3.56	5	1035	9.12	51.5	1045	N	Opt	2.25x1.50	7	2.62x1.75	2.62x2.75	abce	Opt	⅞–18	Opt	.....	Yes	805	21	27	41$^{15}/_{16}$	2, 3	19
Cl	4.56	65.0	1.12x3.62	5	1035	9.12	51.5	1045	N	Opt	2.25x1.50	7	2.62x1.75	2.62x2.75	abce	Opt	⅞–13	Opt	.....	Yes	810	21	27	41$^{15}/_{16}$	2, 3	20
Cl	4.56	83.0	1.12x3.68	5	1035	9.12	51.5	1045	N	Opt	2.25x1.50	7	2.62x1.75	2.62x2.75	abce	Opt	⅞–18	Opt	.....	Yes	820	21	27	41$^{15}/_{16}$	2, 3	21
Cl	4.87	79.5	1.25x3.93	5	1035	9.62	64.5	1045	N	Opt	2.50x1.75	7	3.00x2.00	3.00x3.00	abce	Opt	⅞–18	Opt	.....	Yes	975	21$^{11}/_{32}$	31$^{13}/_{16}$	45$^{9}/_{16}$	2, 3	22
Cl	4.87	85.0	1.25x3.93	5	1035	9.62	64.5	1045	N	Opt	2.50x1.75	7	3.00x2.00	3.00x3.00	abce	Opt	⅞–18	Opt	.....	Yes	975	21$^{11}/_{32}$	31$^{13}/_{16}$	45$^{9}/_{16}$	2, 3	23
Cl	4.87	87.0	1.25x4.06	5	1035	9.62	64.5	1045	N	Opt	2.50x1.75	7	3.00x2.00	3.00x3.00	abce	Opt	⅞–18	Opt	.....	Yes	975	21$^{11}/_{32}$	31$^{13}/_{16}$	45$^{9}/_{16}$	2, 3	24
Al	4.87	60.0	1.25x3.93	5	3140	9.37	81.0	1045	N	Opt	2.62x2.00	7	3.00x1.93	3.00x2.93	abce	Opt	⅞–18	Opt	.....	Yes	1000	21$^{11}/_{32}$	31$^{13}/_{16}$	45$^{9}/_{16}$	2, 3	25
Al	4.87	62.0	1.25x4.06	5	3140	9.37	81.0	1045	N	Opt	2.62x2.00	7	3.00x1.93	3.00x2.93	abce	Opt	⅞–18	Opt	.....	Yes	1010	21$^{11}/_{32}$	31$^{13}/_{16}$	45$^{9}/_{16}$	2, 3	26
Al	6.50	95.0	1.50x4.43	4	3140	12.00	143.0	1045	N	Opt	3.00x2.25	7	3.50x2.37	3.50x3.50	abce	Opt	⅞–18	Opt	.....	Yes	1810	24½	40½	54½	00, 0, 1	27
Al	6.87	105.0	1.50x4.56	4	3140	12.00	143.0	1045	N	Opt	3.00x2.25	7	3.50x2.37	3.50x3.50	abce	Opt	⅞–18	Opt	.....	Yes	1810	24½	40½	54½	00, 0, 1	28
Al	6.87	117.5	1.50x4.81	4	3140	12.00	143.0	1045	N	Opt	3.00x2.25	7	3.50x2.37	3.50x3.50	abce	Opt	⅞–18	Opt	.....	Yes	1830	24½	40½	54½	00, 0, 1	29
Al	7.25	127.5	1.50x5.06	4	3140	12.00	143.0	1045	N	Opt	3.00x2.25	7	3.50x2.37	3.50x3.50	abce	Opt	⅞–18	Opt	.....	Yes	1830	24½	40½	54½	00, 0, 1	30
Cl	3.93	33.5	.937x2.87	4	1040	8.25	35.6	1045	N	Y	2.00x1.21	4	2.62x1.54	2.62x2.09	abcde	AC	18 mm.	Zen	1½	.....	485	.....	.....	.....	.....	31
Cl	3.59	38.8	.919x2.94	4	3140	8.56	41.9	3140	....	Y	2.12x1.40	4	2.37x1.40	2.37x1.81	abcde	AC	⅞–18	Zen	1⅝	.....	640	.....	.....	.....	4	32
Cl	3.93	41.3	1.10x3.04	4	3140	9.25	55.1	1045	....	N	2.25x1.46	7	2.70x1.53	2.70x2.54	abcde	AC	⅞–18	Zen	1⅝	.....	875	.....	.....	.....	.....	33
Ala	4.56	34.2	1.10x3.17	4	3140	9.25	55.1	1045	....	N	2.25x1.46	7	2.70x1.53	2.70x2.54	abcde	AC	⅞–18	Zen	1½	.....	860	.....	.....	.....	.....	34
Ala	5.78	72.7	1.49x3.71	4	3140	11.75	136.9	3140	....	N	2.75x2.00	7	3.25x2.56	3.25x3.50	abcde	AC	⅞–18	Zen	1½	.....	1840	.....	.....	.....	1	35
Ala	5.50	87.3	1.49x4.32	4	3140	11.75	136.9	3140	....	N	2.75x2.00	7	3.25x2.56	3.25x3.50	abcde	AC	⅞–18	Zen	1½	.....	1790	.....	.....	.....	1	36
Cl	2.68	.....	.687x2.50	3	CS	5.12	.....	CS	N	N	1.50x1.00	3	2.00x1.37	2.00x1.31	ab	CH	14 mm.	Str	.....	No	260	.....	.....	.....	NP	37
Ala	3.06	20.0	.750x2.87	3	3140	6.56	20.0	CS	N	N	1.75x1.12	3	2.00x1.56	2.00x1.62	abm	....	.....	.....	.....	No	370	23⅛	21$^{15}/_{16}$	34$^{5}/_{16}$	NP	38
Ala	3.00	20.0	.750x2.87	3	3140	6.56	20.0	CS	N	N	1.75x1.12	3	2.00x1.62	2.00x1.58	abm	....	.....	.....	.....	No	405	23⅛	21$^{15}/_{16}$	34$^{5}/_{16}$	NP	39
Ala	.....	.....	.....	4	CS	8.00	37.5	CS	N	N	2.00x1.50	3	2.00x2.62	2.00x2.00	abm	....	.....	.....	.....	No	700	23⅛	28	44$^{9}/_{16}$	NP	40
Cl	4.12	73.0	.875x3.12	3	CS	9.00	38.0	CS	N	N	1.37x2.25	3	1.37x3.62	1.37x3.00	.....	....	.....	.....	.....	No	590	21	28¾	51$^{11}/_{16}$	NP	41
Ala	.....	.....	.....	...	CS	.....	.....	CS	.....	...	2.00x1.50	3	2.00x2.62	2.00x2.00	abm	....	.....	.....	.....	No	700	23⅛	28	44$^{9}/_{16}$	NP	42
Ala	5.25	62.0	1.25x3.87	4	CS	11.00	81.0	CS	N	N	2.00x2.25	5	2.00x3.87	2.00x2.62	abce	CH	¾–18	Str	1½†	No	830	23⅞	31⅝	55$^{15}/_{16}$	NP	43
Ala	.....	.....	.....	...	CS	.....	.....	CS	N	N	2.00x1.25	7	2.50x1.93	2.50x1.87	ab	CH	14 mm.	Str	1½†	No	620	24	23	41⅝	NP	44
Ala	.....	.....	.....	4	CS	.....	.....	CS	.....	Y	.....	7	2.50x	2.50x	abc	CH	14 mm.	.....	1½†	No	620	24	23	41⅝	RGP	45
Ala	4.12	36.0	1.00x3.37	4	CS	8.00	38.0	CS	N	N	2.00x1.50	7	2.50x2.12	2.50x1.37	abm	CH	¾–18	.....	.....	No	795	23⅛	26¾	51⅝	NP	46
Ala	4.12	36.0	1.00x3.37	4	CS	8.00	38.0	CS	N	N	2.00x1.50	7	2.50x2.12	2.50x1.37	abm	CH	¾–18	.....	.....	No	865	23⅛	26¾	51⅝	NP	47
Ala	.....	.....	.....	4	CS	8.00	38.0	CS	N	N	2.00x1.50	7	2.50x2.12	2.50x1.37	ab	CH	¾–18	Str	1½†	No	865	23⅛	26¾	50¾	NP	48
Ala	.....	.....	.....	4	CS	9.12	51.0	CS	N	N	2.25x1.50	7	2.62x1.75	2.62x1.75	abm	CH	14 mm.	.....	.....	No	1125	24¾	28¾	55⅝	NP	49
Ala	5.25	62.0	1.25x3.62	4	CS	11.00	80.0	CS	N	Y	2.25x2.23	7	2.50x3.91	2.50x2.56	abcdem	CH	¾–18	.....	.....	No	1530	28½	33¼	68⅝	NP	50
Ala	5.25	62.0	1.25x3.62	4	CS	11.00	80.0	CS	N	N	2.25x2.23	7	2.50x3.91	2.50x2.56	abcdem	CH	14 mm.	Str	2†	No	1390	25½	32	68⅝	NP	51
Ala	5.25	62.0	1.25x3.62	4	CS	11.00	80.0	CS	N	N	2.25x2.23	7	2.50x3.91	2.50x2.56	abcdem	CH	14 mm.	Str	2†	No	1530	25½	32	68⅝	NP	52
Ala	6.19	82.0	1.25x4.50	4	CS	11.00	80.0	CS	.125	N	2.25x2.23	7	2.50x3.91	2.50x2.62	abcdem	CH	18 mm.	Str	2†	No	1570	28½	34½	68⅝	NP	53
Ala	6.19	82.0	1.25x4.50	...	CS	11.00	80.0	CS	N	N	2.25x2.23	7	2.50x3.91	2.50x2.62	abcdem	CH	18 mm.	Str	1¾†	No	1500	29⅞	38½	69⅝	NP	54
Ala	.....	.....	.750x.....	...	.....	.....	.....	CSt	.187	Y	2.00x1.94	3	2.00x1.81	2.00x2.25	ab	....	.....	.....	.....	No	730	29⅛	31⅝	43	NP	55
Ala	.....	.....	.750x.....	...	.....	.....	.....	CSt	.187	Y	2.00x1.94	3	2.00x1.81	2.00x2.25	ab	....	.....	.....	.....	No	640	29⅛	31⅝	43	NP	56
Std	.....	.....	.750x.....	3	AS	.....	20.6	CS2	....	Y	2.12x.....	4	.....	.....	abce	CH	14 mm.	.....	.....	No	800	24½	32	50⅝	RGP	57
Ala	6.19	82.0	1.25x4.50	4	CS	11.00	184.0	CS	N	Y	2.75x2.25	7	3.00x3.84	3.00x2.25	abcdem	CH	18 mm.	Str	.....	No	2480	42½	38	75$^{15}/_{16}$	NP	58
Ala	3.68	22.4	.750x2.81	3	CS	8.00	29.9	CS	N	N	1.75x1.50	3	1.87x1.81	1.87x1.56	abc	CH	18 mm.	Sch	1¼†	No	400	21¼	23⅞	36⅛	RGP	59
Cl	4.50	45.7	.875x3.21	4	CS	9.00	41.6	CS	N	N	2.12x1.50	3	2.12x1.75	2.12x2.37	abc	Opt	⅞–18	Opt	1	No	475	25¾	32$^{29}/_{32}$	32$^{19}/_{32}$	4	60
Ala	3.75	21.9	.875x2.50	4	CS	9.50	37.4	CS	N	N	2.12x1.25	4	2.37x1.93	2.37x1.87	abc	Opt	14 mm.	Opt	1¼	No	525	22$^{15}/_{16}$	29$^{29}/_{64}$	34$^{7}/_{16}$	4, 5	61
Ala	3.75	20.0	.875x2.50	3	CS	9.50	37.4	CS	N	N	2.12x1.25	4	2.37x1.93	2.37x1.87	abce	CH	18 mm.	Zen	1½†	No	682	24½	28	39$^{25}/_{32}$	RGP	62
Ala	3.75	21.1	.875x2.50	3	CS	9.50	37.4	CS	N	N	2.12x1.25	4	2.37x1.93	2.37x1.87	abce	CH	18 mm.	Zen	1½†	No	695	24½	28	44	RGP	63
Ala	4.25	34.4	1.00x3.21	4	CS	9.00	54.4	CS	N	Y	2.34x1.68	4	2.62x2.12	2.62x2.75	abcde	Opt	18 mm.	Opt	1½	No	785	25¾	31$^{27}/_{64}$	41$^{15}/_{16}$	3	64
Ala	3.93	23.5	.875x2.59	4	CS	7.62	31.7	CS	N	Y	2.00x2.37	3	2.50x2.40	2.50x1.75	abcde	Opt	14 mm.	Opt	1(D)	No	550	22½	32½	34⅝	.....	65
Ala	3.75	21.9	.875x2.12	4	CS	9.50	37.4	CS	N	N	2.12x1.25	5	2.37x1.93	2.37x1.87	abc	Opt	14 mm.	Opt	1(D)	No	610	22$^{15}/_{16}$	29$^{29}/_{64}$	45$^{7}/_{16}$	4, 5	66
Ala	3.75	21.9	.875x2.50	4	CS	9.50	37.4	CS	N	N	2.12x1.25	5	2.37x1.93	2.37x1.87	abc	Opt	18 mm.	Opt	1½	No	655	22$^{15}/_{16}$	29$^{29}/_{64}$	45$^{7}/_{16}$	4, 5	67
Ala	3.75	21.9	.875x2.50	3	CS	9.50	37.4	CS	N	Y	2.12x1.25	5	2.37x1.93	2.37x1.87	abc	Opt	14 mm.	Opt	1½	No	705	28$^{25}/_{32}$	29$^{29}/_{64}$	22$^{19}/_{32}$	4	68
Ala	3.87	23.0	.875x2.59	4	CS	9.50	38.7	CS	N	N	2.12x1.25	5	2.37x1.87	2.37x1.93	abcde	CH	18 mm.	Zen	1½†	No	915	26¼	27½	51⅝	RGP	69
Ala	3.93	23.4	.875x2.59	4	CS	7.62	31.7	CS	N	Y	2.00x2.37	3	2.50x2.40	2.50x1.75	abcde	Opt	14 mm.	Opt	1¼(D)	No	565	22⅛	32½	34⅝	.....	70
Ala	4.25	32.0	1.00x3.18	4	CS	9.00	45.6	CS	N	N	2.34x1.68	5	2.62x.....	2.62x.....	abce	CH	18 mm.	Zen	1½†	No	1170	27	29	61$^{7}/_{16}$	RGP	71
Ala	4.25	32.2	1.00x3.21	4	CS	9.00	54.4	CS	N	N	2.34x1.68	5	2.62x2.12	2.62x2.75	abcde	Opt	18 mm.	Opt	1¼(D)	No	1110	26	34$^{29}/_{32}$	52$^{5}/_{16}$	2	72
Ala	3.87	23.0	.875x2.59	4	CS	9.43	40.8	CS	N	Y	2.50x1.25	4	3.00x2.56	3.00x2.37	abcdeg	Opt	18 mm.	Opt	(2)1¼	No	1085	25$^{7}/_{16}$	35$^{5}/_{16}$	46$^{29}/_{64}$	4	73
Ala	5.68	59.8	1.18x4.15	5	CS	9.00	75.5	CS	N	Y	3.00x1.62	4	6.00x2.12	6.00x2.12	abcdeg	CH	18 mm.	Str	2†	No	2350	32$^{29}/_{32}$	37$^{1}/_{16}$	67$^{11}/_{32}$	RGP	74
Ala	5.68	59.8	1.18x4.15	5	CS	9 00	75.5	CS	N	Y	3.00x1.62	4	6.00x2.12	6.00x2.12	abcdeg	CH	18 mm.	Str	2†	No	2350	32$^{29}/_{32}$	37$^{1}/_{16}$	67$^{11}/_{32}$	RGP	75
Cl	6.81	137.1	1.43x4.50	3	AS	15.00	160.0	CS	⅛	Y	2.37x3.25	3	2.98x3.06	2.93x3.93	abc	Opt	⅞–18	Str	1½	No	1250	32¾	44⅞	48⅝	Yes	76
Cl	4.31	48.5	1.00x3.25	4	AS	11.25	62.0	CS	N	Y	2.37x1.62	7	2.62x1.69	2.62x2.78	abc	Opt	18 mm.	Str	1½	No	959	26¼	36	46$^{15}/_{16}$	3	77
Ala	4.31	40.6	1.00x3.50	5	AS	11.25	62.0	CS	N	Y	2.37x1.62	7	2.62x1.68	2.62x2.78	abc	Opt	18 mm.	Str	1½	No	875	26¾	36	46$^{17}/_{32}$	3	78
Cl	5.00	63.6	1.12x3.62	4	AS	12.50	83.0	CS	N	Y	2.50x1.81	7	3.00x2.25	3.00x3.12	abce	Opt	18 mm.	Str	1¾	No	1199	29	41	50⅞	2	79
Cl	5.37	80.9	1.12x3.87	4	AS	12.50	83.0	CS	1/16	Y	2.50x1.81	7	3.00x2.25	3.00x3.12	abce	Opt	18 mm.	Str	1¾	No	1209	27	39½	50⅞	2	80
Ala	5.37	63.1	1.12x4.12	4	AS	12.50	83.0	CS	1/16	Y	2.50x1.81	7	3.00x2.25	3.00x3.12	abce	Opt	18 mm.	Str	1¾	No	1214	27	39½	50⅞	3	81
Cl	5.75	82.1	1.43x4.31	4	AS	12.50	96.0	CS	N	Y	3.00x2.37	4	3.56x2.25	3.50x3.68	abce	Opt	⅞–18	Str	1¾	No	1722	30	43	58⅝	Yes	82
Cl	6.87	137.4	1.43x4.50	3	AS	15.00	159.0	CS	1/16	Y	2.68x3.00	4	3.43x2.93	3 25x3.75	abc	Opt	⅞–18	Str	2	No	1905	31¼	46$^{7}/_{16}$	67¼	Yes	83
Ala	3.68	.....	.746x2.50	4	AS	6.00	.....	CNS	....	Y	1.50x.875	2	2.00x1.81	2.00x1.81	abc	AC	18 mm.	Zen	.....	No	240	24½	17¾	28½	RGP	84
Ala	3.68	.....	.746x2.50	4	AS	6.00	.....	CNS	....	Y	1.50x.875	2	2.00x1.81	2.00x1.81	abc	AC	18 mm.	Win	(2)	No	240	24½	17¾	28½	RGP	85
Cl	3.93	35.0	1.10x3.06	4	CS	8.75	42.2	.....	N	....	2.20x1.50	3	2.25x1.31	2.25x2.31	abcde	CH	⅞–18	Zen	1	Yes	695	18½	31	29½	NP	88
Cl	5.00	80.0	1.25x3.87	4	CS	10.00	98.0	CS	N	N	2.37x2.50	3	2.50x2.68	2.62x3.50	abce	CH	⅞–18	Sch	1	Yes	1240	23½	43¾	46½	2	87
Cl	5.50	102.0	1.25x4.25	4	CS	12.00	114.0	CS	N	N	2.37x2.87	3	2.25x3.18	2.25x4.00	abce	CH	⅞–18	Sch	1¼	Yes	1275	22½	47⅝	42¾	2	88
Cl	6.75	170.0	1.62x5.00	4	CS	14.00	248.0	CS	N	N	3.00x3.62	3	2.87x3.91	3.12x5.75	abe	CH	⅞–18	Sch	1½	Yes	2100	34¾	47½	54¼	1	89
Ala	.....	.....	1.37x4.53	6	AS	15.50	176.0	CNS	N	N	2.56x3.07	5	2.56x3.62	2.56x4.25	abcdem	Opt	18 mm.	Sho	1¾†	Yes	2900	35	54⅛	78⅛	RGP	90
Ala	.....	.....	1.25x5.59	4	AS	17.31	184.0	CNS	N	N	2.56x3.07	5	2.56x3.62	2.56x4.25	abcdem	Opt	18 mm.	Hol	†	No	2400	35	51¾	78⅛	RGP	91
Ala	.....	.....	1.37x5.87	4	AS	15.50	176.0	CNS	N	N	2.56x3.07	7	2.56x1.56	2.56x4.25	abcdem	Opt	18 mm.	Str	†	No	2350	29	52½	96½	RGP	92
Ala	.....	.....	1.25x5.59	4	AS	17.31	184.0	CNS	N	N	2.56x3.07	7	2.56x3.62	2.56x4.25	abcdem	Opt	18 mm.	Hol	†	No	3000	35	51¾	98⅛	RGP	93
Ala	.....	.....	1.37x4.53	6	AS	15.5	176.0	CNS	N	N	2.56x3.15	7	2.56x3.62	2.56x4.25	abcdem	Opt	18 mm.	Sho	1†¾	Yes	3725	35	54½	98⅛	RGP	94
Ala	.....	.....	1.37x4.53	6	AS	15.5	176.0	CNS	N	N	2.56x3.15	7	2.56x3.62	2.56x4.25	abcdem	Opt	18 mm.	Sho	2†	Yes	3850	40	52¼	98⅛	RGP	95

(For abbreviations see page 327)

AMERICAN STOCK, MARINE AND

Line Number	MAKE AND MODEL	Designed for	Number of Cylinders, Bore and Stroke (Ins.)	Rated HP (A.M.A.)	Maximum Brake HP at Specified R.P.M.	Piston Displacement (Cu. Ins.)	Compression Ratio	Maximum Torque at R.P.M. (Lb. Ft.)	No. of Cylinders Cast in one piece	Crankcase—Upper Half Integral with Cylinders	VALVES									Front End Drive—Type
											Arrangement	Exhaust Head Material or S.A.E. No.	Clear Diameter (Ins.)		Lift (Ins.)		Stem Diameter (Ins.)		Seat Angle (Degrees)	
													Intake	Exhaust	Intake	Exhaust	Intake	Exhaust		
1	Regal.....Y	M	1—3½x3½	4.2	2- 800	29.0	.....	 700	1	Se	L	CI	1.12	1.12	.312	.312	.312	.312	45	Sp
2	Regal.....OA	M	1—4x4½	4.4	4- 800	56.0	.....	 650	1	Se	L	CI	1.50	1.50	.312	.312	.375	.375	45	Sp
3	Regal.....HA	M	1—4½x5½	9.0	6- 800		.....	.....	1	Se	L	CI	2.00	2.00	.375	.375	.375	.375	45	Hi
4	Regal.....EA	M	1—5¼x6½	11.0	7- 600	141.0	.....	.....	1	Se	L	CI	2.12	2.12	.375	.375	.375	.375	45	Sp
5	Regal.....NB	M	2—4x4½	12.8	8- 800	112.0	.....	.....	1	Se	L	CI	1.50	1.50	.312	.312	.375	.375	45	Sp
6	Regal (10).....GB	M	2—4½x6	18.0	16-1000	213.0	.....	 800	2	Se	L	CI	2.18	2.18	.375	.375	.375	.375	45	Hi
7	Regal.....KB	M	2—5½x7	24.2	16- 600	332.0	.....	 500	...	Se	L	CI	2.37	2.37	.437	.437	.437	.437	45	Hi
8	Regal.....LB	M	2—6½x8	33.8	20- 600	.....	.....	 500	1	Se	L	CI	2.62	2.62	.437	.437	.500	.500	45	Sp
9	Regal.....SC	M	4—7½x9	50.0	50- 400	.....	.....	.....	1	Se	L	CI	2.62	2.62	.375	.375	.562	.562	45	Sp
10	Reo.....S-140	T	4—3⅛x4⅜	16.2	45-2800	140.0	5.40	98-1600	4	In	L	SII	1.37	1.06	.291	.292	.312	.312	(h)	Ch
11	Reo.....S-209	T, B, Tr	6—3⅛x4⅜	24.3	70-2800	209.0	5.40	145-(aa)	6	In	L	SII	1.37	1.06	.284	.284	.312	.312	(h)	Ch
12	Reo.....S-228	T, B, Tr	6—3⅛x4¼	27.3	73-3000	228.0	5.40	150-(bb)	6	In	L	SII	1.62	1.62	.312	.312	.343	.343	45	Ch
13	Reo.....S-3L	T, B, Tr	6—3⅛x5	27.3	81-2800	268.0	5.58	160-(cc)	6	In	L	SII	1.62	1.62	.312	.312	.343	.343	45	Ch
14	Reo.....S-268	T, B, Tr	6—3⅛x5	27.3	83-2800	268.0	5.58	178-1300	6	In	L	SII	1.62	1.62	.312	.312	.343	.343	45	Ch
15	Reo.....S-309	T, B, Tr	6—3⅛x5	31.5	87-2800	309.0	5.44	204- 800	6	In	L	SII	1.62	1.62	.312	.312	.343	.343	45	Ch
16	Roberts (11).....Y	M	8—3½x3¾	29.9	95-3800	221.0	6.30	.....	8	In	L	Tun	1.62	1.62	.312	.312	.312	.312	45	Hi
17	Scripps.....F4	M	4—3¾x5	22.5	81-3000	220.0	6.10	1800	4	In	L	SII	1.93	1.93	.406	.406	.375	.375	45	Hi
18	Scripps.....F6	M	6—3¾x5	33.7	120-3000	331.0	6.10	1800	6	In	L	SII	1.93	1.93	.406	.406	.375	.375	45	Hi
19	Scripps.....150, 1, 2, 3	M	6—4¼x5¼	43.3	165-3000	447.0	6.20	1800	2	Se	L	SII	2.25	2.25	.375	.375	.437	.437	45	Hi
20	Scripps.....154, 5, 6, 7	M	6—4¼x5¼	43.3	155-3000	447.0	6.20	2000	2	Se	L	SII	2.25	2.25	.375	.375	.437	.437	45	Hi
21	Scripps.....160, 1, 2, 3	M	6—4½x5¾	48.6	168-2400	549.0	5.20	1200	2	Se	L	SII	2.37	2.28	.405	.405	.437	.437	45	Hi
22	Scripps.....164, 5	M	6—4½x5¾	48.6	125-2000	549.0	5.20	1000	2	Se	L	SII	2.37	2.28	.405	.405	.437	.437	45	Hi
23	Scripps.....170, 1, 2, 3	M	6—4¾x5¾	54.1	186-2400	611.0	5.20	.....	2	Se	L	SII	2.37	2.28	.405	.405	.437	.437	45	Hi
24	Scripps.....174, 5	M	6—4¾x5¾	54.1	146-2000	611.0	5.20	.....	2	Se	L	SII	2.37	2.28	.405	.405	.437	.437	45	Hi
25	Scripps.....200, 1, 2, 3	M	6—5x5¾	60.0	212-2400	677.0	6.20	.....	2	Se	L	SII	2.56	2.28	.405	.405	.437	.437	45	Hi
26	Scripps.....204, 5, 6, 7	M	6—5x5¾	60.0	165-2000	677.0	6.20	.....	2	Se	L	SII	2.56	2.28	.405	.405	.437	.437	45	Hi
27	Scripps.....V8	M	8—3⅛x3¾	37.4	85-3400	221.0	6.16	.....	8	In	L	SII	1.53	1.53	.296	.296	.312	.312	45	Hi
28	Scripps.....V-12 61	M	12—2¾x3¾	36.3	110-3600	267.0	6.70	198-1800	12	In	L	SII	1.53	1.68	.292	.292	.311	.311	45	Hi
29	Scripps.....V-12 63	M	12—2¾x3¾	36.3	110-3600	267.0	6.70	198-1800	12	In	L	SII	1.53	1.68	.292	.292	.311	.311	45	Hi
30	Scripps.....V-12 65	M	12—2¾x3¾	36.3	110-3600	267.0	6.70	198-1800	12	In	L	SII	1.53	1.68	.292	.292	.311	.311	45	Hi
31	Scripps.....V-12 67	M	12—2¾x3¾	36.3	110-3600	267.0	6.70	198-1800	12	In	L	SII	1.53	1.68	.292	.292	.311	.311	45	Hi
32	Scripps.....V-12 71	M	12—2¾x3¾	36.3	110-3600	267.0	6.70	198-1800	12	In	L	SII	1.53	1.68	.292	.292	.311	.311	45	Hi
33	Scripps.....V-12 73	M	12—2¾x3¾	36.3	110-3600	267.0	6.70	198-1800	12	In	L	SII	1.53	1.68	.292	.292	.311	.311	45	Hi
34	Scripps.....V-12 75	M	12—2¾x3¾	36.3	110-3600	267.0	6.70	198-1800	12	In	L	SII	1.53	1.68	.292	.292	.311	.311	45	Hi
35	Scripps.....V-12 77	M	12—2¾x3¾	36.3	110-3600	267.0	6.70	198-1800	12	In	L	SII	1.53	1.68	.292	.292	.311	.311	45	Hi
36	Scripps.....300, 1, 2, 3	M	12—4¼x5¼	86.7	304-2400	894.0	6.20	1800	2	Se	L	SII	2.25	2.25	.375	.375	.437	.437	45	Hi
37	Scripps.....300, 4, 5, 6, 7	M	12—4¼x5¼	86.7	280-2400	894.0	6.20	1600	2	Se	L	SII	2.25	2.25	.375	.375	.437	.437	45	Hi
38	Seaman.....EM-2	M	2—2½x2½	5.0	12-4000	24.5	.....	20-1000	2	Se	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
39	Seaman.....EM-4	M	4—2½x2½	10.0	24-4000	49.0	.....	20-2600	2	Se	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40	Seaman.....E-2 & EV-4	Ind	2—2½x2½	5.0	12-4000	24.5	.....	.....	2	Se	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
41	Speedway.....K	M	4—4x4½	25.6	28-1400	226.0	4.00	125- 900	2	Se	L	Spec	1.75	1.75	.343	.343	.375	.375	45	Hi
42	Speedway.....SW	M	6—4½x4½	40.8	95-2500	360.8	5.70	250-1000	6	In	L	Spec							45	Hi
43	Speedway.....SWX	M	6—4¼x4¾	43.3	118-2800	404.3	5.50	265-1100	6	In	L	Spec	1.62	1.50					45	Hi
44	Speedway.....S	M	6—4¼x6	43.3	100-1800	511.0	5.00	350-1300	2	Se	L	Spec	1.87	1.75	.406	.437	.437	.437	45	Hi
45	Speedway.....MC	M	6—5¼x7	79.3	250-1800	1092.0	5.00	790-1400	2	Se	L	Spec	2.50	2.50	.562	.562	.531	.531	45	Hi
46	Speedway.....MP	M	6—5¼x7	79.3	185-1300	1092.0	4.30	780-1000	2	Se	L	Spec	2.50	2.50	.562	.562	.531	.531	45	Hi
47	Speedway.....P	M	6—6¼x8½	79.3	115- 600	1825.0	3.80	1070- 300	2	Se	L	Spec	2.62	2.62	.468	.468	.562	.562	45	Hi
48	Speedway.....R	M	6—7x8½	196.0	300-1200	1963.0	4.20	1480- 800	1	Se	I	Spec	2.25**	2.25**	.500	.500	.562	.562	45	Hi
49	Sterling.....D2-12	M	2—5½x7	24.2	15- 500	332.6	.....	157- 500	2	Se	L	SII	2.06	2.06	.375	.375	.437	.437	45	Hi
50	Sterling.....Petrel L-6	M	6—5¼x6	66.1	115-1200	780.0	4.30	504-1200	6	Se	L	SII	2.25	2.25	.455	.455	.437	.437	45	Hi
51	Sterling.....Petrel L-6	M	6—5¼x6	66.1	145-1500	780.0	4.68	507-1500	6	Se	L	SII	2.25	2.25	.455	.455	.437	.437	45	Hi
52	Sterling.....Petrel L-6	M	6—5¼x6	66.1	145-1500	780.0	4.68	507-1500	6	Se	L	SII	2.25	2.25	.455	.455	.437	.437	45	Hi
53	Sterling.....Petrel L-6-6	M	6—5¼x6	66.1	180-1800	780.0	5.00	525-1800	6	Se	L	SII	2.25	2.25	.455	.455	.437	.437	45	Hi
54	Sterling.....Petrel Reduction L	M	6—5¼x6	66.1	190-2000	780.0	5.54	525-2000	6	Se	L	SII	2.25	2.25	.455	.455	.437	.437	45	Hi
55	Sterling.....Petrel L-6	M	6—5¼x6	66.1	200-2000	780.0	5.54	525-2000	6	Se	L	SII	2.25	2.25	.455	.455	.437	.437	45	Hi
56	Sterling.....Petrel L-6	M	6—5¼x6	66.1	225-2200	780.0	5.50	537-2200	6	Se	L	SII	2.25	2.25	.455	.455	.437	.437	45	Hi
57	Sterling....Chevron 6	M	6—5½x6¾	72.6	85- 800	962.0	.....	558- 800	2	Se	T	SII	2.25	2.25	.375	.375	.500	.500	45	Hi
58	Sterling.....Chevron 6	M	6—5½x6¾	72.6	130-1200	962.0	.....	570-1200	2	Se	T	SII	2.25	2.25	.375	.375	.500	.500	45	Hi
59	Sterling.....Chevron 6	M	6—5½x6¾	72.6	150-1500	962.0	.....	525-1500	2	Se	T	SII	2.25	2.25	.375	.375	.500	.500	45	Hi
60	Sterling..Dolphin Medium GRM-6	M	6—5¼x6¾	79.3	165-1200	1051.6	3.85	723-1200	2	Se	I	SII	1.87**	1.87**	.375	.375	.437	.437	60	Hi
61	Sterling.....Dolphin 6 GR-6	M	6—5¼x6¾	79.3	225-1550	1051.6	4.08	787-1200	2	Se	I	SII	1.87**	1.87**	.375	.375	.437	.437	60	Hi
62	Sterling.....Dolphin 6 GRS-6	M	6—5¼x6¾	79.3	300-2000	1051.6	4.70	829-1750	2	Se	I	SII	1.87**	1.87**	.375	.375	.437	.437	60	Hi
63	Sterling.....Coast Guard (6) M-6	M	6—6¼x7¾	93.7	225-1200	1426.8	4.13	986-1200	6	Se	I	SII	1.87	1.87	.483	.483	.437	.437	60	Hi
64	Sterling....Coast Guard 6 (6) M-6	M	6—6¼x7¾	93.7	300-1550	1426.8	4.13	986-1200	6	Se	I	SII	1.87	1.87	.483	.483	.437	.437	60	Hi
65	Sterling.....Viking II (6) T-6	M	6—8x9	153.6	190- 600	2714.3	3.93	1670- 600	6	Se	I	SII	2.59**	2.59**	.556	.556	.562	.562	45	Hi
66	Sterling.....Viking II (6) T-6	M	6—8x9	153.6	300- 900	2714.3	4.18	1755- 900	6	Se	I	SII	2.59**	2.59**	.556	.556	.562	.562	45	Hi
67	Sterling.....Viking II 6 (6) T-6	M	6—8x9	153.6	425-1200	2714.3	4.18	1914- 900	)	Se	I	SII	2.59**	2.59**	.556	.556	.562	.562	45	Hi
68	Sterling.....Dolphin Med. GRM-8	M	8—5¼x6¾	105.8	220-1200	1402.2	3.85	963-1200	!	Se	I	SII	1.87**	1.87**	.375	.375	.437	.437	60	Hi
69	Sterling.....Dolphin 8 GR-8	M	8—5¼x6¾	105.8	300-1550	1402.2	4.08	1050-1200	!	Se	I	SII	1.87**	1.87**	.375	.375	.437	.437	60	Hi
70	Sterling.....Viking 8 (6) T-8	M	8—8x9	204.8	250- 600	3619.0	3.93	2190- 600	8	Se	I	SII	2.59**	2.59**	.556	.556	.562	.562	45	Hi
71	Sterling.....Viking II-8 (6) T-8	M	8—8x9	204.8	400- 900	3619.0	4.18	2420- 900	8	Se	I	SII	2.59**	2.59**	.556	.556	.562	.562	45	Hi
72	Sterling.....Viking II-8 (6) T-8	M	8—8x9	204.8	565-1200	3619.0	4.18	2500- 900	8	Se	I	SII	2.59**	2.59**	.556	.556	.562	.562	45	Hi
73	Thorobred.....K	M	1—3¾x4¾	5.6	5-1000	52.5	4.00	.....	1	Se	L	CI	1.43	1.43	.300	.300	.375	.375	45	Hi
74	Thorobred.....KK	M	2—3¾x4¾	11.2	10-1100	105.0	4.00	.....	2	Se	L	CI	1.43	1.43	.300	.300	.375	.375	45	Hi
75	Thorobred.....D	M	4—2¾x4	12.1	16-1800	95.0	4.86	.....	4	In	L	CA	1.31	1.18	.250	.250	.312	.312	45	Hi
76	Thorobred.....Arrowhead Jr.	M	4—3¼x4	16.9	35-2500	133.0	6.00	97-1300	4	In	L	CHS	1.18	1.18	.281	.281	.312	.312	45	Hi
77	Thorobred.....Arrowhead KH	M	4—3⅛x4½	21.0	42-2250	186.0	4.60	.....	4	In	L	SII	1.37	1.37	.302	.245	.375	.375	45	Hi
78	Thorobred.....AA	M	4—3¾x4¾	22.5	24-1400	210.0	4.00	.....	2	Se	L	CI	1.43	1.43	.300	.300	.375	.375	45	Hi
79	Thorobred.....F	M	4—4½x5	26.3	36-1400	259.0	4.00	.....	4	Se	L	DC	1.75	1.75	.300	.300	.375	.375	45	Hi
80	Thorobred.....B	M	4—4½x5	32.4	44-1800	318.0	4.00	.....	4	Se	L	DC	1.93	1.93	.300	.300	.375	.375	45	Hi
81	Thorobred.....BB-4	M	4—4½x6	32.4	56-1600	382.0	4.00	.....	4	Se	L	DC	2.12	2.12	.300	.300	.437	.437	45	Hi
82	Thorobred.....BC-4	M	4—5x7	40.0	56-1200	550.0	4.00	.....	2	Se	L	CA	2.37	2.37	.375	.375	.625	.625	45	Hi
83	Thorobred.....BCS-4	M	4—5¾x7	52.9	71-1100	727.0	4.00	.....	2	Se	L	CA	2.37	2.37	.375	.375	.625	.625	45	Hi
84	Thorobred.....BC-Super-4	M	4—6x7	57.6	78-1100	792.0	4.00	.....	2	Se	L	CA	2.37	2.37	.375	.375	.625	.625	45	Hi
85	Thorobred.....Hiawatha	M	6—3¾x4¼	33.7	84-3000	282.0	.....	188-1100	6	In	L	SII	1.50	1.25	.375	.375	.375	.375	45	Hi
86	Thorobred.....Arrow Super-6	M	6—4¼x4¾	43.3	90-2200	404.0	.....	274- 900	6	In	L	SII	1.62	1.34	.312	.312	.375	.375	45	Hi
87	Thorobred.....BB 6	M	6—4½x6	48.6	80-1725	572.5	4.00	.....	6	Se	L	DC	2.12	2.12	.300	.300	.437	.437	45	Hi
88	Thorobred.....BBS 6	M	6—5x6	60.0	101-1500	707.0	4.00	.....	6	Se	L	DC	2.12	2.12	.300	.300	.437	.437	45	Hi
89	Thorobred.....BC 6	M	6—5x7	60.0	90-1100	825.0	4.00	.....	2	Se	L	CA	2.37	2.37	.375	.375	.625	.625	45	Hi
90	Thorobred.....BCS 6	M	6—5¾x7	79.3	112-1100	1091.0	4.00	.....	2	Se	L	CA	2.37	2.37	.375	.375	.625	.625	45	Hi
91	Thorobred.....BC Super-6	M	6—6x7	86.4	124-1100	1187.5	4.00	.....	2	Se	L	CA	2.37	2.37	.375	.375	.625	.625	45	Hi
92	Universal.....W	M	1—4½x4½	7.8	8-1200	67.8	4.60	...- 680	1	In	L	CNS	1.62	1.62	.250	.250	.375	.375	45	Sp
93	Universal.....AFT	M	2—3x3½	7.2	10-2000	49.5	5.75	....-1800	2	In	L	CNS	1.50	1.50	.250	.250	.375	.375	45	Hi
94	Universal.....BN	M	4—2¾x4	12.1	20-2000	95.0	5.00	.....	4	In	L	CNS	1.25	1.25	.234	.234	.312	.312	45	Hi
95	Universal.....AF	M	4—3x3½	14.4	30-2800	99.0	5.75	.....	4	In	L	CNS	1.50	1.50	.312	.312	.375	.375	45	Hi

(For abbreviations see page 327)

COMMERCIAL VEHICLE ENGINES—*Continued*

PISTONS					CONNECTING RODS			CRANKSHAFT								SPARK PLUG		CARBURETOR				OVERALL DIMENSIONS (Ins.)				
											Crank-pin	Main Bearings														
												Diameter and Length (Ins.)														
Material	Length (Ins.)	Weight (with Pins, Rings, and Bushing)—Ozs.	Piston Pin—Diameter and Length (Ins.)	Number of Rings per Piston	Material	Center to Center Length (Ins.)	Weight—with Bushing and Cap (Ozs.)	Material	Offset	Counterbalances Used	Diameter and Length (Ins.)	Number	Front	Rear	Oil Pressure to	Recommended Make	Thread Size	Make	Size	Adapted for use of Kerosene or Distillate	Weight (without Carburetor or Ignition)—Lbs.	Width	Height	Length	Bell Housing Provided S.A.E. Numbers	Line Number
Cl	3.50	.....	.718x3.00	3	AS	.....	.....	CS	1.62	Y	1.37x1.50	2	1.37x2.62	1.37x2.25	b	Opt	⅞–18	Zen	¾	No	130	11½	14½	13½	RGA	1
Cl	4.56	.....	1.84x3.75	4	CS	.....	.....	CS	2.25	Y	1.50x2.00	2	Ball Brg	Ball Brg	Splash	Opt	⅞–18	Zen	1	No	245§	16	17⅝	21⅝	RGA	2
Cl	5.50	.....	1.09x4.50	4	.....	.....	.....	CS	N	Y	1.75x2.50	2	1.62x4.25	1.62x4.12	Splash	Opt	⅞–18	Zen	.....	No	400§	17	22½	24½	RGA	3
Cl	6.50	.....	1.21x5.00	4	CS	.....	.....	CS	N	Y	1.87x2.81	2	1.87x5.25	1.87x5.00	Splash	Opt	⅞–18	.....	†	No	610	20	24¼	44⅜	RGA	4
Cl	4.56	.....	1.84x3.75	4	.....	.....	.....	CS	N	Y	1.50x2.00	3	1.37x4.00	1.37x4.00	Splash	Opt	⅞–18	Zen	††	No	540§	16	17⅝	42	RGP	5
Cl	5.50	.....	1.09x4.50	4	CS	.....	.....	CS	N	Y	2.25x2.25	3	2.25x5.00	2.25x5.00	Splash	Opt	⅞–18	Str	1¼†	Yes	900	20	24	47¾	RGP	6
Cl	7.00	.....	1.21x5.25	4	CS	.....	.....	CS	N	Y	2.37x2.81	3	2.37x4.00	2.37x4.00	Splash	Opt	⅞–18	Str	1½†	Yes	1200	21¾	25½	52⅝	RGP	7
Cl	8.00	.....	1.59x6.25	4	CS	.....	.....	CS	N	Y	2.37x3.37	3	2.37x5.00	2.37x5.00	Splash	Opt	⅞–18	Str	1½†	Yes	1850	23½	30½	63	RGP	8
Cl	8.00	.....	2.00x7.25	5	CS	.....	.....	CS	N	N	3.00x3.25	5	2.75x6.00	2.18x5.50	ML	Opt	⅞–18	.....	†	D	4600	28¼	96½	37	RGP	9
Cl	9.87	.....	2.00x7.25	5	CS	.....	.....	CS	N	Y	1.93x1.31	3	2.25x1.25	2.25x1.68	abe	CH	14 mm.	Car	1¼	No	.....	.....	.....	.....	3 M	10
Ala	3.56	17.5	.858x2.69	4	CS	7.00	29.7	CS	N	Y	1.93x1.31	4	2.25x1.25	2.25x1.68	abe	CH	14 mm.	Car	1¼	No	520	.....	.....	.....	3.M	11
Ala	3.56	17.5	.858x2.69	4	CS	7.00	29.7	CS	N	Y	2.18x1.50	7	2.62x1.93	2.62x2.46	abe	CH	14 mm.	Car	1¼	No	724	.....	.....	.....	3.M	12
Ala	4.00	22.8	.983x2.90	4	CS	10.50	44.0	CS	N	Y	2.18x1.50	7	2.62x1.93	2.62x2.46	abe	CH	14 mm.	Car	1½	No	724	.....	.....	.....	3.M	13
Ala	4.00	22.8	.983x2.90	4	CS	10.50	44.0	CS	N	...	2.18x1.50	7	2.62x1.93	2.62x2.46	abe	CH	14 mm.	Car	1½	No	724	.....	.....	.....	3.M	14
Ala	4.00	22.8	.983x2.90	4	CS	10.50	44.0	CS	N	...	2.18x1.50	7	2.62x1.93	2.62x2.46	abe	CH	14 mm.	Car	1½	No	800	.....	.....	.....	3	15
Ala	4.00	22.8	.983x2.90	4	CS	10.50	44.0	CS	N	...	2.18x1.50	7	2.62x1.93	2.62x2.46	abe	CH	14 mm.	Car	1½	No	800	.....	.....	.....	.....	16
Ala	4.50	28.0	.983x3.12	4	CS	10.50	44.0	CS	N	Y	2.18x1.50	7	2.62x1.93	2.62x2.46	abe	CH	14 mm.	Car	1½	No	800	.....	.....	.....	RGP	17
Ala	2.50	9.0	.750x2.75	3	AS	.....	.....	CS	N	N	2.50x2.00	3	3.00x2.50	3.00x2.00	ace	CH	18 mm.	Str	1¼†	...	560	24	30	43	.....	18
Ala	4.25	33.0	1.12x3.25	4	Dur	10.50	41.0	NS	N	N	2.18x1.87	3	2.25x2.62	2.25x2.62	abe	CH	18 mm.	Str	1¼†	No	660	23	28⅛	45¼	.....	19
Ala	4.25	33.0	1.12x3.25	4	Dur	10.50	41.0	NS	N	Y	2.18x1.87	4	2.25x2.62	2.25x2.62	abe	CH	18 mm.	Zen	1½†	No	900	19¾	29⅛	56½	NP	20
Ala	4.25	33.0	1.12x3.25	4	Dur	10.50	41.0	NS	N	Y	2.75x2.25	4	3.25x2.25	3.25x2.25	abe	CH	18 mm.	Hol	2(D)†	No	1050	27¾	32⅝	56¾	NP	21
Ala	5.12	49.0	1.25x3.68	4	AS	10.87	70.0	NS	N	Y	2.75x2.25	4	3.25x2.25	3.25x2.25	abe	CH	18 mm.	Str	2†	No	1050	24⅝	29⅛	56¾	NP	22
Ala	5.12	49.0	1.25x3.68	4	AS	10.87	70.0	NS	N	Y	2.87x2.00	4	3.00x3.00	3.00x3.62	ab	CH	18 mm.	Hol	1½(D)†	No	1295	26¼	36⅝	66	NP	23
Ala	5.12	50.0	1.37x3.84	4	AS	11.25	84.0	NS	N	Y	2.87x2.00	4	3.00x3.00	3.00x3.62	ab	CH	18 mm.	Sch	1½(D)†	No	1295	26¼	36⅝	66	NP	24
Ala	5.12	50.0	1.37x3.84	4	AS	11.25	84.0	NS	N	Y	2.87x2.00	4	3.00x3.00	3.00x3.62	ab	CH	18 mm.	Hol	2(D)†	No	1295	26¼	36⅝	66	NP	25
Ala	5.12	56.0	1.37x4.00	4	AS	11.25	84.0	NS	N	Y	2.87x2.00	4	3.00x3.00	3.00x3.62	ab	CH	18 mm.	Hol	1½(D)†	No	1295	26¼	36⅝	66	NP	26
Ala	5.37	62.0	1.37x4.00	4	AS	11.25	84.0	NS	N	Y	2.87x2.00	4	3.00x3.00	3.00x3.62	ab	CH	18 mm.	Sch	1½(D)†	No	1295	33½	33½	66	NP	27
Ala	5.37	62.0	1.37x4.00	4	AS	11.25	84.0	NS	N	Y	2.87x2.00	4	3.00x3.00	3.00x3.62	ab	CH	18 mm.	Str	(2)†	No	660	23½	31⅛	42⅝	.....	28
Ala	.....	.....	.....	3	AS	.....	.....	CS	5/16	...	.....	3	.....	.....	abe	CH	14 mm.	Str	††	No	.....	25⅝	29⅞	49⅛	RGP	29
Stl	2.97	13.7	.750x2.48	3	AS	7.40	20.6	CS	¼	Y	2.12x.781	4	2.40x1.83	2.40x2.25	abe	CH	14 mm.	Str	††	No	.....	25⅝	29⅞	49⅛	RGP	30
Stl	2.97	13.7	.750x2.48	3	AS	7.40	20.6	CS	¼	Y	2.12x.781	4	2.40x1.83	2.40x2.25	abe	CH	14 mm.	Str	††	No	.....	25⅝	31¼	49⅛	RGP	31
Stl	2.97	13.7	.750x2.48	3	AS	7.40	20.6	CS	¼	Y	2.12x.781	4	2.40x1.83	2.40x2.25	abe	CH	14 mm.	Str	††	No	.....	25⅝	31¼	49⅛	RGP	32
Stl	2.97	13.7	.750x2.48	3	AS	7.40	20.6	CS	¼	Y	2.12x.781	4	2.40x1.83	2.40x2.25	abe	CH	14 mm.	Str	††	No	.....	25⅝	29⅞	57¼	RGP	33
Stl	2.97	13.7	.750x2.48	3	AS	7.40	20.6	CS	¼	Y	2.12x.781	4	2.40x1.83	2.40x2.25	abe	CH	14 mm.	Str	††	No	.....	25⅝	29⅞	57¼	RGP	34
Stl	2.97	13.7	.750x2.48	3	AS	7.40	20.6	CS	¼	Y	2.12x.781	4	2.40x1.83	2.40x2.25	abe	CH	14 mm.	Str	††	No	.....	25⅝	31¼	57¼	RGP	35
Stl	2.97	13.7	.750x2.48	3	AS	7.40	20.6	CS	¼	Y	2.12x.781	4	2.40x1.83	2.40x2.25	abe	CH	14 mm.	Str	††	No	.....	25⅝	31½	57¼	RGP	36
Stl	2.97	13.7	.750x2.48	3	AS	7.40	20.6	CS	¼	Y	2.12x.781	4	2.40x1.83	2.40x2.25	abe	CH	14 mm.	Str	††	No	.....	25⅝	31½	57¼	NP	37
Ala	5.12	49.0	1.25x3.68	4	AS	10.87	164.0φ	NS	N	Y	2.75x2.25	4	3.25x2.25	3.25x2.25	abe	CH	18 mm.	Hol	2(D)†	No	1700	35	33¾	58½	NP	38
Ala	5.12	49.0	1.25x3.68	4	AS	10.87	164.0φ	NS	N	Y	2.75x2.25	4	3.25x2.25	3.25x2.25	abe	CH	18 mm.	Hol	2(D)†	No	1700	33¼	30⅛	58½	NP	39
Ala	.....	.....	.850x.....	3	AS	7.37	.....	AS	N	Y	1.50x1.87	2	1.37xB–Ti	B–Ti	b	Opt	18 mm.	Opt	1	K	100	.....	.....	.....	RGP	40
Ala	.....	.....	.850x.....	3	AS	7.37	.....	AS	N	Y	1.50x1.87	2	1.37xB–Ti	B–Ti	b	Opt	18 mm.	Opt	1	K	180	.....	.....	.....	RGP	41
Ala	7.25	16.00	.850x.....	3	AS	7.37	.....	AS	...	Y	1.50x.....	2	1.37xB–Ti	B–Ti	b	Opt	18 mm.	Opt	1	K	.....	12	20	.....	6	42
Cl	4.37	.....	1.00x3.75	3	AS	9.87	.....	Spec	N	N	1.75x2.25	3	1.75x3.25	1.75x3.25	Splash	CH	⅞–18	Str	††	No	550	20⅝	23⅝	53½	RGP	42
...	.....	.....	.....	...	AS	.....	.....	Spec	...	Y	.....	7	2.62x2.75	2.62x1.62	abde	CH	14 mm.	Str	1½†	No	1100	23	28⅝	54¾	RGP	43
Ala	.....	.....	.....	...	AS	.....	.....	Spec	...	Y	.....	7	2.62x2.75	2.62x1.62	abde	CH	14 mm.	Str	1½†	No	1200	23	28⅝	54¾	RGP	44
Ala	.....	.....	.....	...	AS	.....	.....	Spec	...	Y	.....	7	2.62x2.75	2.62x1.62	abde	CH	14 mm.	Str	1½†	No	1300	22⅝	31½	70	RGP	45
Ala	5.00	.....	1.18x4.00	4	AS	13.50	.....	Spec	N	Y	2.75x2.12	7	2.75x2.12	2.75x2.12	abde	CH	⅞–18	Str	2†	No	2100	29⅜	39⅞	88⅛	RGP	46
Ala	6.12	.....	1.37x5.37	6	AS	15.50	.....	Spec	N	N	2.62x3.00	7	2.62x3.00	2.62x3.00	abde	CH	⅞–18	Str	2†	No	2025	29½	39⅞	88⅛	RGP	47
Cl	6.25	.....	1.37x5.37	4	AS	15.50	.....	Spec	N	N	2.62x3.00	7	2.62x3.00	2.62x3.00	abde	CH	⅞–18	Str	2†	No	4800	34¼	48¼	103¼	RGP	48
Cl	8.25	.....	1.62x6.37	4	AS	20.0	.....	Spec	N	N	2.87x3.62	7	2.87x3.62	2.87x3.62	abde	CH	⅞–18	Hol	2†	No	4000	36	55⅜	111½	RGP	49
Cl	7.00	.....	1.87x5.50	4	AS	19.0	.....	Spec	N	Y	3.50x4.12	7	3.50x4.12	3.50x4.12	abde	CH	½ pipe	Sch	1½†	No	1100	24	36½	53⅞	.....	50
Cl	6.00	140.0	1.25x5.12	4	CS	12.50	96.0	CNS	N	Y	2.25x2.62	3	2.25x4.62	2.25x4.75	abc	CH	⅞–18	Zen	(2)1½†	No	1400	27½	33½	71¾	.....	51
Ala	5.50	94.0	1.43x4.37	4	CS	12.50	113.0	CNS	N	Y	2.50x2.12	7	3.00x1.75	3.00x2.87	abcdef	CH	⅞–18	Zen	(2)1½†	No	1400	27½	33½	71¾	.....	52
Ala	5.50	94.0	1.43x4.37	4	CS	12.50	113.0	CNS	N	Y	2.50x2.12	7	3.00x1.75	3.00x2.87	abcdef	CH	⅞–18	Zen	(2)1½†	No	1850	27½	33½	71¾	.....	53
Ala	5.50	94.0	1.43x4.37	4	CS	12.50	113.0	CNS	N	Y	2.50x2.12	7	3.00x1.75	3.00x2.87	abcdef	CH	⅞–18	Zen	(2)1¾†	No	1400	27½	33½	71¾	.....	54
Ala	5.50	94.0	1.43x4.37	4	CS	12.50	113.0	CNS	N	Y	2.50x2.12	7	3.00x1.75	3.00x2.87	abcdef	CH	⅞–18	Zen	(2)1½†	No	2700	32⅛	47½	92¼	NP	55
Ala	5.50	94.0	1.43x4.37	4	CS	12.50	113.0	CNS	N	Y	2.50x2.12	7	3.00x1.75	3.00x2.87	abcdef	CH	⅞–18	Zen	(2)1½†	No	2000	27½	33½	71¾	.....	56
Ala	5.50	94.0	1.43x4.37	4	CS	12.50	113.0	CNS	N	Y	2.50x2.12	7	3.00x1.75	3.00x2.87	abcdef	CH	⅞–18	Zen	(2)1½†	No	2000	27½	33½	71¾	NP	57
Ala	5.50	94.0	1.43x4.37	4	CS	12.50	113.0	CNS	N	Y	2.50x2.12	7	3.00x1.75	3.00x2.87	abcdef	CH	⅞–18	Zen	(2)1¾†	No	2000	30½	36¼	87½	.....	58
Cl	6.00	140.0	1.25x5.12	5	CS	14.00	130.0	CNS	N	Y	2.50x3.00	4	2.50x4.37	2.50x4.37	abcdef	CH	(2)⅞–18	Zen	(2)1¾†	No	2000	30½	36¼	87½	.....	59
Cl	6.00	140.0	1.25x5.12	5	CS	14.00	130.0	CNS	N	Y	2.50x3.00	4	2.50x4.37	2.50x4.37	abcdef	CH	(2)⅞–18	Zen	(2)1¾†	No	2000	30½	36¼	87½	.....	60
Cl	6.00	140.0	1.25x5.12	5	CS	14.00	130.0	CNS	N	Y	2.50x3.00	4	2.50x4.37	2.50x4.37	abcdef	CH	(3)⅞–18	Zen	(2)1¾†	No	2250	30½	45¼	87½	NP	61
Ala	5.18	100.0	1.25x5.12	3	CS	14.00	130.0	CNS	N	Y	2.50x3.00	4	2.50x4.37	2.50x4.37	abcdef	CH	(3)⅞–18	Zen	(2)1¾†	No	2000	30½	45¼	87½	NP	62
Ala	6.06	100.0	1.25x5.12	3	CS	14.00	130.0	CNS	N	Y	2.50x3.00	4	2.50x4.37	2.50x4.37	abcdef	CH	(3)⅞–18	Zen	(2)2½†	No	2175	30½	45¼	87½	.....	63
Ala	6.46	110.0	1.25x5.12	3	CS	14.00	130.0	CNS	N	Y	2.50x3.00	4	2.50x4.37	3.25x3.68	abcdef	CH	(4)⅞–18	SZ	(2)2½†	No	4000	31	49¼	102	.....	64
Ala	6.06	125.0	1.50x5.37	4	CS	14.50	224.0	CNS	N	Y	3.00x3.12	7	3.25x2.62	3.25x3.68	abcdef	CH	(4)⅞–18	SZ	(2)2½†	No	3400	31	49¼	102	.....	65
Ala	6.42	129.0	1.50x5.37	4	CS	14.50	224.0	CNS	N	Y	3.00x3.12	7	3.25x2.62	3.25x3.68	abcdef	CH	(4)⅞–18	Zen	(3)2½†	No	7100	40½	72¾	121¾	.....	66
Ala	8.00	280.0	2.00x7.00	4	CS	18.00	416.0	CNS	N	Y	4.00x3.12	7	4.00x3.37	4.00x5.50	abcdef	CH	(4)⅞–18	Zen	(3)2½†	No	7100	40½	72¾	121¾	.....	67
Ala	8.25	290.0	2.00x7.00	4	CS	18.00	416.0	CNS	N	Y	4.00x3.12	7	4.00x3.37	4.00x5.50	abcdef	CH	(4)⅞–18	Zen	(3)2½†	D	7100	40½	72¾	121¾	NP	68
Ala	8.93	290.0	2.00x7.00	4	CS	18.00	416.0	CNS	N	Y	4.00x3.12	7	4.00x3.37	4.00x5.50	abcdef	CH	(4)⅞–18	Zen	(3)2½†	No	3400	30½	45⅛	104⅛	.....	69
Ala	5.81	100.0	1.25x5.12	3	CS	14.00	130.0	CNS	N	Y	2.50x3.00	4	2.50x4.37	2.50x4.37	abcdef	CH	(3)⅞–18	Zen	(2)2½†	No	3400	30½	45⅛	104⅛	NP	70
Ala	6.06	100.0	1.25x5.12	3	CS	14.00	130.0	CNS	N	Y	2.50x3.00	5	2.50x4.37	2.50x4.37	abcdef	CH	(4)⅞–18	Zen	(4)2½†	No	9000	40½	72¾	142⅝	.....	71
Ala	8.00	280.0	2.00x7.00	4	CS	18.00	416.0	CNS	N	Y	4.00x3.12	7	4.00x3.37	4.00x5.50	abcdef	CH	(4)⅞–18	Zen	(4)2½†	No	9000	40½	72¾	142⅝	.....	72
Ala	8.25	290.0	2.00x7.00	4	CS	18.00	416.0	CNS	N	Y	4.00x3.12	9	4.00x3.37	4.00x5.50	abcdef	CH	(4)⅞–18	Zen	(4)2½†	D	9000	40½	72¾	142⅝	NP	73
Ala	8.93	290.0	2.00x7.00	4	CS	18.00	416.0	CNS	N	Y	4.00x3.12	9	4.00x3.37	4.00x5.50	abcdef	CH	(4)⅞–18	Zen	(4)2½†	No	9000	40½	72¾	142⅝	RGP	74
Cl	4.12	64.5	1.10x3.25	3	CS	8.50	43.0	CS	3/16	Y	1.50x2.12	2	1.50x3.00	1.50x3.00	Splash	AC	⅞–18	Str	¾†	K	210	19¼	22⅞	21¾	RGP	73
Cl	4.12	64.5	1.10x3.25	3	CS	8.50	43.0	CS	3/16	N	1.50x2.12	2	1.50x3.00	1.50x3.00	Splash	AC	⅞–18	Str	††	K	415	19½	22⅝	36¼	RGP	74
Cl	4.12	64.5	1.10x3.25	3	CS	8.50	43.0	CS	3/16	...	1.50x2.12	2	1.50x3.00	1.50x3.00	Splash	AC	⅞–18	Str	1	K	330	15⅛	21⅛	35⅝	RGP	75
Cl	3.00	19.0	.625x2.40	3	CS	8.00	27.0	CS	¼	N	1.75x1.50	2	1.76x2.81	1.73x2.87	abe	AC	18 mm.	Str	††	K	490	21⅜	24⅝	35	RGP	76
Cl	3.50	29.0	.875x2.62	3	CS	7.25	32.0	CS	N	...	1.75x1.25	3	2.12x1.43	2.12x1.18	abcde	AC	⅞–18	Str	††	K	610	19⅛	28¼	41	RGP	77
Cl	3.93	45.0	1.10x3.06	4	CS	8.75	46.0	CS	¼	N	2.00x1.50	3	2.00x2.50	2.00x1.87	abcde	AC	⅞–18	Str	††	K	820	19½	22⅝	46⅝	RGP	78
Cl	4.12	64.5	1.10x3.25	3	CS	8.50	43.0	CS	3/16	N	1.50x2.12	3	1.50x3.00	1.50x3.00	abe	AC	⅞–18	Str	1	K	830	20¼	28⅛	54⅝	RGP	79
Cl	4.75	68.5	1.10x3.56	4	CS	10.37	66.0	CS	N	N	2.00x2.25	3	2.00x4.18	2.00x3.50	abe	AC	⅞–18	Str	1½†	K	830	20¼	28⅛	54⅝	RGP	80
Cl	4.75	88.5	1.10x3.93	4	CS	10.37	66.0	CS	N	N	2.00x2.25	3	2.00x4.18	2.00x3.50	abe	AC	⅞–18	Str	1½†	K	1175	22¾	27½	62⅝	RGP	81
Cl	5.25	82.0	1.25x3.87	4	CS	11.37	87.0	CS	N	N	2.56x2.25	5	2.56x4.25	2.56x4.25	abcde	AC	⅞–18	Str	2†	K	1720	25⅛	35½	77½	RGP	82
Cl	6.00	126.0	1.43x4.68	4	CS	13.25	168.0	CS	N	N	2.56x3.00	5	2.62x4.50	2.62x4.50	abcde	AC	⅞–18	Str	2†	K	1730	25⅛	35½	77½	RGP	83
Cl	6.00	150.0	1.43x5.25	4	CS	13.25	168.0	CS	N	N	2.56x3.00	5	2.62x4.50	2.62x4.50	abcde	AC	⅞–18	Str	2†	K	1740	25⅛	35½	77½	RGP	84
Cl	6.00	190.0	1.43x5.50	4	CS	13.25	168.0	CS	N	N	2.56x3.00	5	2.62x4.50	2.62x4.50	abcde	AC	⅞–18	Str	.....	K	.....	22½	28¼	53⅛	RGP	85
Ala	.....	.....	1.00x3.00	4	CS	8.00	.....	CS	N	N	2.00x1.50	7	2.62x2.00	2.62x1.25	abcde	AC	18 mm.	Str	.....	K	.....	20¼	27⅛	57⅛	RGP	86
Cl	.....	.....	1.00x4.00	4	CS	8.75	50.0	CS	N	N	2.25x1.50	7	2.62x2.75	2.62x1.62	abcde	AC	18 mm.	Str	1½†	K	1475	23½	30⅝	75⅛	RGP	87
Cl	5.25	82.0	1.25x3.87	4	CS	11.37	87.0	CS	N	N	2.56x2.25	7	2.56x4.25	2.56x4.25	abce	AC	⅞–18	Str	2†	K	1565	24½	30⅝	75⅛	RGP	88
Cl	5.25	106.0	1.25x4.31	4	CS	11.37	87.0	CS	N	N	2.56x2.25	7	2.56x4.25	2.56x4.25	abce	AC	⅞–18	Str	2†	K	2330	27½	35½	94½	RGP	89
Cl	6.00	126.0	1.43x4.68	4	CS	13.25	168.0	CS	N	N	2.56x3.00	7	2.62x4.50	2.62x4.50	abcde	AC	⅞–18	Str	2†	K	2360	27½	35½	94½	RGP	90
Cl	6.00	150.0	1.43x5.25	4	CS	13.25	168.0	CS	N	N	2.56x3.00	7	2.62x4.50	2.62x4.50	abcde	AC	⅞–18	Str	2†	K	2380	27½	35½	94½	RGP	91
Cl	6.00	190.0	1.43x5.50	4	CS	13.25	168.0	CS	N	N	2.56x3.00	7	2.62x4.50	2.62x4.50	abcde	AC	⅞–18	Str	2†	K	2380	27½	35½	94½	RGP	92
Cl	4.65	.....	1.00x3.75	3	Dur	8.50	.....	CS	N	Y	2.00x2.00	2	2.00x2.00	2.00x2.00	Splash	CH	18 mm.	Str	5/16	Yes	200	18½	25⅜	18½	RGP	93
Ala	3.25	.....	.750x2.56	4	CS	7.25	.....	CS	N	N	1.75x1.37	2	1.75x1.87	1.75x2.00	abc	CH	18 mm.	Str	5/16†	Yes	300	20⅞	22⅝	27¼	RGP	94
Cl	3.25	.....	.625x2.44	3	CS	7.50	.....	CS	N	N	1.50x1.75	2	1.50x2.75	1.50x2.75	abc	CH	18 mm.	Zen	††	Yes	377	17⅝	17⅛	34	RGP	94
Cl	3.25	.....	.750x2.56	3	CS	7.25	.....	CS	N	Y	1.75x1.37	3	1.75x2.50	1.75x2.50	abc	CH	18 mm.	Zen	††	Yes	435	18⅛	22½	38⅛	RGP	95

(For abbreviations see page 327)

AMERICAN STOCK, MARINE AND

Line Number	MAKE AND MODEL	Designed for	Number of Cylinders, Bore and Stroke (Ins.)	Rated HP (A.M.A.)	Maximum Brake HP at Specified R.P.M.	Piston Displacement (Cu. Ins.)	Compression Ratio	Maximum Torque at R.P.M. (Lb. Ft.)	No. of Cylinders Cast in one piece	Crankcase—Upper Half Integral with Cylinders	VALVES									Front End Drive—Type
													Clear Diameter (Ins.)		Lift (Ins.)		Stem Diameter (Ins.)			
											Arrangement	Exhaust Head Material or S.A.E. No.	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	Seat Angle (Degrees)	
1	Universal.....AF-HI	M	4—3x3½	14.4	42–4000	99.0	6.50	.....	4	In	L	SII	1.50	1.50	.312	.312	.375	.375	45	HI
2	Universal.....LSG	M	4—3¼x4½	16.9	48–3000	149.3	5.70	.....	4	Se	L	CNS	1.50	1.50	.312	.312	.375	.375	45	HI
3	Universal.....AFS	M	6—3x3½	21.6	45–2800	148.5	5.75	.....	6	In	L	CNS	1.50	1.50	.312	.312	.375	.375	45	HI
4	Universal.....AFS-HI	M	6—3x3½	21.6	62–4000	148.5	6.50	.....	6	In	L	SII	1.50	1.50	.312	.312	.375	.375	45	HI
5	Universal.....HCS	M	6—3½x4½	29.4	90–3000	260.0	5.75	.....	6	Se	L	SII	1.50	1.50	.328	.328	.375	.375	45	HI
6	Universal.....CE	M	8—3½x4½	39.2	90–2500	347.0	5.70	.....	8	Se	L	SII	1.50	1.50	.328	.328	.375	.375	45	Ch
7	Vimalert.....V-690	M	8—4⅝x5⅛	68.4	120–1800	688.0	6.00	308–1400	4	Se	L	SII	1.68	1.68	.420	.420	.625	.625	30	....
8	Vimalert.....M-12	M	12—5x7	120.0	420–2000	1650.0	5.25	1650–1400	1	Se	I	SII	2.73	2.73	.437	.437	.435	.435	....	Be
9	Vimalert.....Duplex Unit	M	Note — Consists of Two Model M-12 Engines. Gear box between																	
10	Vimalert.....V-2500	M	12—6½x6½	154.7	1000–2200	2539.5	5.80	2385–2200	6	Se	I	TPA	2.00	2.00	.500	.500	.593	.593	45	....
11	Waukesha.....FCS	T, Tr	4—2¾x4	12.1	26–2600	95.0	5.75	67–1100	4	In	L	SII	1.18	1.18	.281	.281	.312	.312	45	HI
12	Waukesha.....FC	T, Tr	4—3¼x4	16.9	35–2600	133.0	5.60	92–1200	4	In	L	SII	1.18	1.18	.281	.281	.312	.312	45	HI
13	Waukesha.....XAH	T, B, Tr	4—3⅝x4½	21.0	37–2200	186.0	4.70	121– 900	4	In	L	SII	1.37	1.37	.281	.281	.375	.375	45	HI
14	Waukesha.....VIS	Tr	4—4⅛x5¼	27.2	48–1500	281.0	4.10	176–1000	4	In	I	SII	1.75	1.75	.400	.400	.375	.375	45	HI
15	Waukesha.....VIK	Tr	4—4½x5¼	34.2	53–1500	334.0	4.40	205–1000	4	In	I	SII	1.75	1.75	.400	.400	.375	.375	45	HI
16	Waukesha.....CHS	Tr	4—4¾x6¼	36.1	58–1200	443.0	4.20	274– 900	4	In	I	SII	2.12	2.12	.437	.437	.437	.437	45	HI
17	Waukesha.....CHK	Tr	4—5½x6¼	42.0	68–1200	516.0	4.20	320– 900	4	In	I	SII	2.12	2.12	.437	.437	.437	.437	45	HI
18	Waukesha.....6ZKA	T, B, Tr	6—3⅝x4⅛	27.3	65–2800	221.0	5.60	154–1100	6	In	L	SII	1.31	1.18	.281	.281	.312	.312	45	HI
19	Waukesha.....6BL	T, B, Tr	6—3½x4¼	29.4	72–2800	245.0	5.00	166–1100	6	In	L	SII	1.50	1.25	.375	.375	.375	.375	45	HI
20	Waukesha.....6BM	T, B, Tr	6—3⅝x4½	31.5	77–2800	263.0	5.30	176–1100	6	In	L	SII	1.50	1.25	.375	.375	.375	.375	45	HI
21	Waukesha.....6BK	T, B, Tr	6—3¾x4¼	33.8	82–2800	282.0	5.25	185–1100	6	In	L	SII	1.50	1.25	.375	.375	.375	.375	45	HI
22	Waukesha.....6ML	T, B, Tr	6—4x4⅜	38.4	78–2500	358.0	6.20	234– 900	6	In	L	SII	1.62	1.37	.312	.312	.375	.375	45	HI
23	Waukesha.....6MK	T, B, Tr	6—4⅛x4¾	40.8	82–2500	381.0	6.10	252–1000	6	In	L	SII	1.62	1.37	.312	.312	.375	.375	45	HI
24	Waukesha.....6MZ	T, B, Tr	6—4¼x4¾	41.0	88–2400	381.0	5.70	263– 900	6	In	L	SII	1.62	1.37	.312	.312	.375	.375	45	HI
25	Waukesha.....6-110	T, B	6—4x4⅜	38.4	106–2500	358.0	5.10	254–1200	6	In	F	SII	1.87	1.62	.500	.437	.437	.437	45	HI
26	Waukesha.....6SRL	T, B, Tr	6—4½x5⅛	46.0	101–2250	462.0	4.60	302– 700	6	Se	L	SII	1.62	1.37	.343	.375	.375	.375	30	HI
27	Waukesha.....6-125	T, B	6—4½x5⅛	46.0	123–2300	462.0	5.00	324–1000	6	In	F	SII	2.12	1.62	.540	.420	.437	.437	45	HI
28	Waukesha.....SRK	T, B, Tr	6—4⅝x5⅛	51.3	110–2250	517.0	4.50	330– 800	6	Se	L	SII	1.62	1.37	.343	.375	.375	.375	30	HI
29	Waukesha.....GAL	T	6—5x5½	60.0	126–1800	648.0	4.60	468– 700	6	In	I	SII	2.00	1.50	.500	.500	.437	.437	45	HI
30	Waukesha.....6RB	T, B	6—5x5⅝	60.0	125–1900	677.0	4.75	441– 600	2	Se	L	SII	2.12	2.12	.375	.375	.437	.437	45	HI
31	Waukesha.....GAK	T	6—5½x5½	72.5	155–1800	785.0	4.80	567– 700	6	In	L	SII	2.00	1.50	.500	.500	.437	.437	45	HI
32	White.....250	T, Tr	6—3⅞x4½	28.4	68–2600	250.0	5.80	165–(t)	6	In	L	SII	1.50	1.37	.396	.396	.375	.375	45	HI
33	White.....270	T, B, Tr	6—3⅞x4½	30.4	83–2800	270.0	5.50	195–(t)	6	In	L	SSt	1.50	1.37	.396	.396	.375	.375	45	HI
34	White.....303	T, B, Tr	6—3⅝x4½	34.3	92–2800	303.0	5.50	215–(t)	6	In	L	SSt	1.50	1.37	.396	.396	.375	.375	45	HI
35	White.....318	T, B, Tr	6—3⅞x4½	36.0	94–2600	318.0	5.50	234–(t)	6	In	L	SSt	1.50	1.37	.396	.396	.375	.375	45	HI
36	White.....396	T, B, Tr	6—4x5½	38.4	116–2600	396.0	5.00	270–(t)	6	Se	O	CNT	1.87	1.75	.381	.381	.437	.437	45	Ch
37	White.....434	T, B, Tr	6—4⅛x5¼	42.0	117–2400	434.0	5.00	295–(t)	6	Se	O	CNT	1.87	1.75	.381	.381	.437	.437	45	Ch
38	White.....460	T, B, Tr	6—4⅛x5¼	44.6	123–2400	460.0	5.00	320–(t)	6	Se	O	CNT	1.87	1.75	.381	.381	.437	.437	45	Ch
39	White.....580	T, B, Tr	6—4½x5¾	57.3	130–2300	580.0	4.60	385–(t)	6	Se	O	CNT	2.09	1.75	.437	.437	.437	.500	45	Ch
40	Wisconsin.....AC-4	Tr	4—2⅝x3¼	11.03	16–2600	70.4	4.60	39.2–1600	4	Se	I	SII	.937	.937	.232	.232	.310	.310	45	HI
41	Wisconsin.....SU	T, Ind	4—4x5	25.6	38–1600	251.0	4.20	160–1000	4	In	I	SII	1.53	1.53	.438	.379	.375	.375	45	HI
42	Wisconsin.....W	T, Tr, Ind	4—4½x5	27.2	42–1600	287.0	4.15	182– 950	4	In	I	SII	1.53	1.53	.438	.379	.375	.375	45	HI
43	Wisconsin.....X	T, Tr, Ind	4—4½x5	32.4	66–1900	318.0	4.25	224–1000	4	In	I	SII	1.81	1.81	.384	.393	.437	.437	45	HI
44	Wisconsin.....N	T, Tr	6—3½x4½	29.4	55–2600	245.0	4.50	163– 650	6	In	I	SII	1.50	1.50	.382	.382	.375	.375	45	HI
45	Wisconsin.....GA-1	T, Tr, Ind	6—3⅝x5	31.5	44–1600	309.0	4.85	196– 675	6	In	I	SII	1.50	1.50	.379	.379	.375	.375	45	HI
46	Wisconsin.....GA-2	T, Tr, Ind	6—3¾x5	33.7	49–1600	331.0	4.50	211– 700	6	In	I	SII	1.50	1.50	.379	.379	.375	.375	45	HI
47	Wisconsin.....L-2	T, Tr, Ind	6—3⅞x5	36.0	62–1800	354.0	4.27	236– 700	6	In	I	SII	1.75	1.75	.379	.379	.434	.434	45	HI
48	Wisconsin.....L-3	T, Tr, Ind	6—4⅛x5	40.8	68–1800	401.0	4.30	260– 700	6	In	I	SII	1.75	1.75	.379	.379	.434	.434	45	HI
49	Wisconsin.....L-4	T, Ind	6—4¼x5	43.3	71–1800	426.0	4.26	280– 650	6	In	I	SII	1.75	1.75	.379	.379	.439	.439	45	HI
50	Wisconsin.....ZA-1	Tr, Ind	6—4½x5	48.6	78–1600	477.0	4.50	322– 800	6	Se	I	SII	2.06	2.06	.450	.450	.437	.437	45	HI
51	Wisconsin.....ZA-2	Tr, Ind	6—4⅝x5	51.3	82–1600	504.0	4.88	340– 750	6	Se	I	SII	2.06	2.06	.450	.450	.437	.437	45	HI
52	Wright.....Typhoon TMC	M	12—5¾x6¼	158.7	650–2000	1947.0	6.50	.....	3	Se	I	.....	1.87	1.87	.500	.500	.495	.495	45	Be

°—Others also
†—Provided with flame arrester
‡—Ball Bearings
*—With Transmission
§—Weight complete
**—2 each per cylinder
¢—per pair
(1)—"S" in Continental model number denotes wet sleeves
(2)—Two used
(3)—Three used
(4)—Four used
(5)—"H" in Domark model numbers denotes Horisontal Type
(6)—Sleeves used in cylinders
(7)—Supercharged
(8)—Cast iron sleeves
(9)—Horisontal by opposed engine
(10)—Also built in 4- and 6-cylinder models
(11)—Johnson Marine Engine Works
a—Main Bearings
(aa)—900-1700 RPM
Al—Aluminum
Ala—Aluminum Alloy
Als—Aluminum with Strut
AS—Alloy Steel
b—Connecting Rod Bearings
(bb)—800-1900 RPM
B—Buses
Be—Bevel Gear
B-Ti—Ball or Timken Roller Bearings
c—Camshaft Bearings
(cc)—800-2200 RPM
C—Cars
CA—Chrome Aluminum
Car—Carter
CAS—Cast Alloy Steel
Ch—Chain
CH—Champion
CHS—Chrome Silicon
CI—Cast Iron
CM—Chrome Molybdenum
CMS—Chrome Manganese Steel
CNA—Chrome Nickel Alloy
CNI—Chrome Nickel Iron
CNM—Chrome Nickel Molybdenum
CNS—Chrome Nickel Steel
CNT—Chrome Nickel Tungsten
CS—Carbon Steel
CSt—Cast Steel
CS2—Copper Silicon Steel No. 2
CV—Chrome Vanadium
d—Wristpins
dd—Forked 67.0 oz., Plain 40.0 oz.
D—Distillate
(D)—Duplex Carburetor
DC—Diachrome
Dur—Duraluminum
e—Timing gears or Chain
(ee)—Forked 88.0 oz., Plain 50.0 oz.
Ext—Extruded Steel
f—Accessories Drive
(ff)—Forked 163.0 oz., Plain 55.0 oz.

48,500 COMMUNITIES, WITHOUT RAILROADS,

40% of All Communities and More Than 6% of Popula-

STATE	COMMUNITIES Total Communities	Not Served by R. R. No.	% of All	POPULATION July 1, 1932	Not Served by R. R. No.	% of Total
Alabama	2,819	895	31.7	2,682,000	200,171	7.5
Arizona	819	264	32.2	448,000	42,785	.6
Arkansas	3,108	1,298	41.7	1,867,000	118,566	6.4
California	5,482	2,240	40.8	5,947,000	351,123	5.9
Colorado	2,372	612	25.8	1,047,000	47,502	4.5
Connecticut	740	319	43.1	1,634,000	222,344	13.6
Delaware	265	117	44.1	240,000	13,410	5.8
Florida	2,514	636	25.2	1,528,000	94,132	6.2
Georgia	3,107	840	27.0	2,910,000	95,813	6.3
Idaho	1,246	333	26.7	447,000	35,593	8.0
Illinois	4,238	826	19.4	7,768,000	141,198	1.8
Indiana	3,106	1,213	39.0	3,275,000	137,702	4.2
Iowa	2,248	642	28.5	2,479,000	53,670	1.8
Kansas	2,185	475	21.7	1,894,000	29,722	1.6
Kentucky	4,530	3,575	78.9	2,638,000	309,750	11.7
Louisiana	2,881	765	26.5	2,138,000	60,861	2.8
Maine	1,860	946	50.8	801,000	277,523	34.6
Maryland	1,932	1,062	54.9	1,653,000	150,521	9.1
Massachusetts	1,493	568	38.0	4,297,000	283,587	6.6
Michigan	3,657	1,251	34.2	4,983,000	364,956	7.3
Minnesota	2,544	841	33.0	2,585,000	74,746	2.9
Mississippi	2,355	915	38.8	2,036,000	65,851	3.2
Missouri	4,246	2,102	49.5	3,656,000	194,583	5.3
Montana	1,609	529	32.8	537,606	30,423	5.7
Nebraska	1,304	307	23.5	1,388,000	15,130	1.1
Nevada	556	149	26.7	93,000	12,059	13.0
New Hampshire	715	341	47.6	468,000	82,491	17.6
New Jersey	1,761	599	34.0	4,148,000	306,100	7.4

COMMERCIAL VEHICLE ENGINES

Material	Length (Ins.)	Weight (with Pins, Rings, and Bushing)—Ozs.	Piston Pin—Diameter and Length (Ins.)	Number of Rings per Piston	Connecting Rods: Material	Connecting Rods: Center to Center Length (Ins.)	Connecting Rods: Weight—with Bushing and Cap (Ozs.)	Crankshaft: Material	Crankshaft: Offset	Crankshaft: Counterbalances Used	Crankshaft: Crank-pin Diameter and Length (Ins.)	Crankshaft: Main Bearings Number	Crankshaft: Main Bearings Diameter and Length (Ins.) Front	Crankshaft: Main Bearings Diameter and Length (Ins.) Rear	Oil Pressure to	Spark Plug: Recommended Make	Spark Plug: Thread Size	Carburetor: Make	Carburetor: Size	Adopted for use of Kerosene or Distillate	Weight (without Carburetor or Ignition)—Lbs.	Overall Dimensions (Ins.): Width	Overall Dimensions (Ins.): Height	Overall Dimensions (Ins.): Length	Bell Housing Provided S.A.E. Numbers	Line Number
Ala	3.25	.....	.750x2.56	4	Dur	7.25	.....	CS	N	Y	1.75x1.37	4	1.75x2.50	1.75x2.50	abcd	CH	18 mm.	Str	1¼†	Yes	375	19 13/16	22 1/16	36 5/8	RGP	1
Ala	3.50	.....	.875x2.75	3	Dur	8.50	.....	CS	N	N	2.00x1.75	3	2.00x2.50	2.00x2.50	abc	CH	18 mm.	Zen	1†	Yes	545	18½	25¼	39 5/8	RGP	2
Ci	3.25	.....	.750x2.56	3	CS	7.25	.....	CS	N	Y	1.75x1.37	4	1.75x1.87	1.75x1.87	abc	CH	18 mm.	Zen	1†	Yes	520	19 5/8	24	43¼	RGP	3
Ala	3.25	.....	.750x2.56	4	Dur	7.25	.....	CS	N	Y	1.75x1.37	4	1.75x1.87	1.75x1.87	abcd	CH	18 mm.	Str	1¼†	No	470	24¼	24	43¼	RGP	4
Ala	3.87	.....	.875x3.00	4	Dur	8.50	.....	CS	N	N	2.00x1.87	7	2.00x2.56	2.00x2.56	abc	CH	18 mm.	Zen	1½†	No	920	22	26 1/16	49 1/16	RGP	5
Ci	3.87	.....	.875x3.00	4	CS	8.50	.....	CS	N	N	2.00x1.87	9	2.00x2.56	2.00x2.56	abc	CH	18 mm.	Zen	1¾†	No	1150	22 15/16	26 5/32	64 1/16	RGP	6
Ala	5.40	72.0	1.18x4.12	7	AS	8.87	(dd)	CNS	N	.....	1.96x2.50	5	2.28x3.93	4.31x1.06‡	abc	BG	18 mm.	Str	1½†	Yes	1150	28 7/8	37 5/8	47¼	RGP	7
Ala	4.65	76.0	1.25x4.36	5	AS	12.00	(ee)	AS	.....	Y	2.37x2.50	7	2.62x4.62	2.62x2.00	abc	CH	18 mm.	Spec	2†	No	1920	32¼	40¾	90¼	.....	8
																										9
Ala	4.50	92.0	1.50x5.62	5	AS	11.00	ff	CNS	N	N	3.25x2.87	8	3.50x2.87	3.50x1.62	abc	BG	18 mm.	Str	3½†	D	2800	42	53 5/16	95 7/16	RGP	10
Ci	3.25	26.0	.875x2.25	3	CS	7.25	29.0	CS	N	N	1.75x1.06	3	2.12x1.18	2.12x1.43	abce	Opt	18 mm.	Opt	1	No	280	19	26 3/4	37 5/8	5, 4	11
Ci	3.50	30.0	.875x2.70	3	CS	7.25	29.0	CS	...	N	1.75x1.25	4	2.12x1.25	2.12x1.50	abce	Opt	18 mm.	Opt	1	No	290	19	26 3/4	37 5/8	5, 4	12
Ci	3.93	45.0	1.10x3.04	4	CS	8.75	46.0	CS	N	N	2.00x1.50	3	2.00x1.87	2.00x2.50	abcde	Opt	7/16-18	Opt	1	Yes	385	17 7/8	27	32 1/4	5	13
Ci	4.87	71.0	1.30x3.81	4	CS	10.50	86.0	CS	N	N	2.37x2.12	3	2.37x2.12	2.37x2.75	abce	Opt	7/16-18	Opt	1¼	Yes	850	21¼	35	39	2, 3	14
Ci	4.87	85.0	1.31x4.06	4	CS	10.50	86.0	CS	N	N	2.37x2.12	3	2.37x2.12	2.37x2.75	abcde	Opt	7/16-18	Opt	1¼	No	925	21¼	35	39	2, 3	15
Ci	5.87	122.0	1.50x4.10	4	CS	11.75	141.0	CS	N	N	2.75x2.50	3	3.00x2.87	3.00x3.62	abcde	Opt	7/16-18	Opt	1½	Yes	1575	24	42	46 1/8	1, 2	16
Ci	5.87	132.0	1.50x4.48	4	CS	11.75	141.0	CS	N	N	2.75x2.50	3	3.00x2.87	3.00x3.62	abcde	Opt	7/16-18	Opt	1½	Yes	1600	24	42	46 1/8	1, 2	17
Ci	4.09	42.0	.875x2.87	4	CS	7.25	34.0	CS	N	N	2.00x1.06	4	2.37x1.25	2.37x1.87	abcde	CH	18 mm.	Zen	1¼	No	590	25¾	28¼	38 1/8	3, 4	18
Ci°	4.37	32.0	1.00x3.16	4	CS	8.00	40.0	CS	N	N	2.00x1.50	7	2.62x1.25	2.62x2.00	abcde	Opt	18 mm.	Opt	1½	No	675	26	31	39 1/2	4, 2, 3	19
Ala	4.37	34.0	1.00x3.06	4	CS	8.00	40.0	CS	N	N	2.00x1.50	7	2.62x1.25	2.62x2.00	abcde	Opt	18 mm.	Opt	1½	No	685	26	31	39 1/2	4, 2, 3	20
Ci°	4.37	37.0	1.00x2.87	4	CS	8.00	40.0	CS	N	N	2.00x1.50	7	2.62x1.25	2.62x2.00	abcde	Opt	18 mm.	Opt	1½	No	690	26	31	39 1/2	4, 2, 3	21
Ci°	4.37	44.0	1.00x3.75	4	CS	8.75	48.0	CS	N	N	2.25x1.50	7	2.62x1.62	2.62x2.75	abcde	Opt	18 mm.	Opt	1½	No	875	20½	31	43 11/16	3, 2	22
Ci°	4.37	45.0	1.00x3.85	4	.....	8.75	48.0	CS	N	.....	2.25x1.50	7	2.62x1.62	2.62x2.75	abcde	Opt	18 mm.	Opt	1½	No	890	20½	31	43 11/16	3, 2	23
Ci°	4.37	78.0	1.00x4.00	4	CS	8.75	48.0	CS	N	N	2.25x1.50	7	2.62x1.62	2.62x2.75	abcde	Opt	18 mm.	Opt	1½	No	920	20½	31	43 11/16	3, 2	24
Ala	4.50	48.0	1.00x3.75	4	CS	8.75	48.0	CS	N	N	2.25x1.50	7	2.87x1.62	2.87x2.75	abcde	Opt	18 mm.	Opt	1¾	No	1125	26	38 1/2	59 1/2	3, 1, 2	25
Ci°	4.62	89.0	1.37x4.00	4	CS	10.25	83.0	CS	N	N	2.75x1.75	7	3.00x1.87	3.00x3.00	abcde	Opt	7/16-18	Opt	1½	No	1185	26	34 7/16	40 7/16	3, 1, 2	26
Ala	5.12	65.0	1.37x3.93	4	CS	10.25	83.0	CS	N	N	2.75x1.75	7	3.00x1.87	3.00x3.00	abcde	Opt	18 mm.	Opt	1¾	No	1425	27	42 3/4	61 1/16	3, 1, 2	27
Ala	5.25	70.0	1.37x4.25	4	CS	10.25	83.0	CS	1/16	N	2.75x1.75	7	3.00x1.87	3.00x3.00	abcde	Opt	7/16-18	Opt	1¾	No	1225	26	35 7/16	46 7/16	3, 1, 2	28
Ci	6.43	190.0	1.87x4.25	5	CS	11.75	130.0	CS	N	N	3.00x2.00	7	3.62x2.62	3.62x2.50	abcde	Opt	18 mm.	Opt	1¾	No	.....	26 7/16	49 1/16	58 7/16	0	29
Ala	6.00	89.0	1.37x4.60	4	AS	13.25	145.0	CNS	N	N	2.75x2.50	4	3.50x2.50	3.00x3.50	abcde	Opt	7/16-18	Opt	2	No	1575	26	41 15/16	54 7/16	2, 1	30
Ci	6.43	198.0	1.87x4.75	5	CS	11.75	130.0	CS	N	N	3.00x2.00	7	3.62x2.62	3.62x2.50	abcde	Opt	18 mm.	Opt	2	No	.....	26 7/16	49 1/16	58 7/16	0	31
Ci	4.71	43.0	1.00x3.00	4	AS	9.46	38.4	CNS	N	Y	2.18x1.34	7	2.87x1.84	2.87x2.12	abcde	AC	14 mm.	Zen	1¼	No	850	.....	.....	.....	3	32
Ci	4.71	48.0	1.12x3.12	4	AS	9.15	38.6	CNS	N	Y	2.18x1.34	7	2.87x1.84	2.87x2.12	abcde	AC	14 mm.	Zen	1⅝	No	852	.....	.....	.....	3	33
Ci	4.71	53.1	1.12x3.12	4	AS	9.15	38.6	CNS	N	Y	2.18x1.34	7	2.87x1.84	2.87x2.12	abcde	AC	14 mm.	Zen	1⅝	No	980	.....	.....	.....	3	34
Ci	4.71	56.1	1.12x3.12	4	AS	9.15	38.6	CNS	N	Y	2.18x1.34	7	2.87x1.84	2.87x2.12	abcde	AC	14 mm.	Zen	1⅝	No	1030	.....	.....	.....	3	35
Ala	5.60	62.4	1.18x3.43	4	AS	10.50	68.8	CNS	N	Y	2.37x1.75	7	2.75x2.50	2.75x2.87	abcdefg	AC	14 mm.	Zen	1¾	No	1320	.....	.....	.....	2	36
Ala	5.43	44.0	1.18x3.43	4	AS	10.50	68.8	CNS	N	Y	2.37x1.75	7	2.75x2.50	2.75x2.87	abcdefg	AC	14 mm.	Zen	1¾	No	1320	.....	.....	.....	2	37
Ala	5.46	65.6	1.18x3.43	4	AS	10.50	68.8	CNS	N	Y	2.37x1.75	7	2.75x2.50	2.75x2.87	abcdefg	AC	14 mm.	Zen	1¾	No	1331	.....	.....	.....	2	38
Ala	5.50	63.0	1.25x4.06	4	AS	12.12	86.7	CNS	N	Y	2.62x2.12	7	3.00x3.12	3.00x3.96	abcdefg	AC	18 mm.	Zen	2	....	1925	.....	.....	.....	Spec	39
Ala	3.00	11.00	.875x2.17	3	CS	8.37	21.0	CS	N	Y	1.75x1.12	2	Tim 420-414	Tim 420-414	abcdeg	CH	18 mm.	Str	¾	D	230	17	26 1/16	28 13/16	5	40
Ci	4.25	49.7	1.06x3.47	3	CS	10.50	64.0	CS	N	N	2.00x2.00	3	1.93x2.50	2.06x3.00	abcdeg	CH	7/16-18	Str	1½	No	615	25¾	34¾	35¼	3, 2	41
Ci	4.15	50.2	1.06x3.47	3	CS	10.50	65.0	CS	N	N	2.37x2.00	3	2.37x2.50	2.37x3.00	abcdeg	CH	7/16-18	Str	1½	No	640	25¾	34¾	35¼	3, 2	42
Ci	4.75	117.7	1.18x3.93	5	CS	10.50	118.7	CS	N	N	2.75x2.50	3	2.75x3.00	2.75x3.00	abcdeg	CH	7/16-18	Str	1½	No	850	25¾	36¾	47 1/16	2	43
Ci	4.00	43.7	1.06x2.84	3	CS	9.00	54.0	CS	N	N	2.25x1.75	4	2.25x2.50	2.25x3.00	abeg	CH	7/16-18	Str	1¼	No	820	25¾	32¾	45 15/16	3	44
Ci	4.00	48.0	1.06x3.09	3	CS	10.50	68.0	CS	N	N	2.50x1.75	4	2.50x2.50	2.50x3.00	abdeg	CH	7/16-18	Str	1½	No	965	25¾	38¼	45 15/16	3	45
Ci	3.90	53.0	1.06x3.09	3	CS	10.50	68.0	CS	N	N	2.50x1.75	4	2.50x2.50	2.50x3.00	abdeg	CH	7/16-18	Str	1½	No	975	25¾	36¼	45 15/16	3, 2	46
Ci	4.87	66.0	1.25x3.14	3	CS	10.50	75.0	CS	N	N	2.62x1.75	4	2.75x2.25	2.75x2.75	abdeg	CH	7/16-18	Str	1½	No	1075	25¾	37⅛	53 1/16	3, 2	47
Ci	4.71	71.0	1.25x3.39	4	CS	10.50	75.0	CS	N	N	2.62x1.75	4	2.75x2.25	2.75x2.75	abdeg	CH	7/16-18	Str	1½	No	1095	25¾	37⅛	53 1/16	3, 2	48
Ci	4.62	80.7	1.25x3.39	4	CS	10.50	75.0	CS	N	N	2.62x1.75	4	2.75x2.25	2.75x2.75	abdeg	CH	7/16-18	Str	1½	No	1110	25¾	37⅛	53 1/16	3, 2	49
Ci	4.75	55.7	1.18x3.93	4	CS	10.50	118.7	CS	N	N	2.75x2.50	4	2.75x3.00	2.75x3.00	abcdeg	CH	7/16-18	Str	1¾	No	1260	25¾	37⅛	60 1/16	2	50
Ci	4.68	119.7	1.18x3.93	4	CS	10.50	118.7	CS	N	N	2.75x2.50	4	2.75x3.00	2.75x3.00	abcdeg	CH	7/16-18	Str	1¾	No	1270	25¾	37⅛	60 1/16	2	51
Ala	4.50	56.0	1.50x5.25	5	AS	10.93	.....	CNS	....	N	3.50x2.50	7	3.25x3.69	3.25x.....	abce	BG	.....	Str	2¼†	D	1850	41⅛	37	88 1/16	RGP	52

F—In Head and Side ("F" Head)
Fl—Flat Type Valve Seat
g—Rocker Arm Bearings
G—Gear
(h)—Intake 30°, Exhaust 45°
HC—Helical Gear and Chain
Hl—Helical Gear
Hol—Holley
I—In head
In—Integral
Ind—Industrial
(k)—850-1550 RPM
K—Kerosene
L—Valves at side (L head)
m—Reverse Gear
M—Marine (Engine Tpye)
M—Modified (Bell Housing)
ML—McCord Lubricator
Mo—Molybdenum
MS—Manganese Steel
M & T—Murray & Tregurtha
(n)—One in head, one in block per cylinder
N—No or None
NP—Not Provided
NS—Nickel Steel
O—Overhead
Opt—Optional
(p)—800-1400 RPM
r—800-1500 RPM
RGA—Reverse Gear Available
RGP—Reverse Gear Provided
RRGP—Reduction and Reverse Gear Provided
(s)—800-1600 RPM
SB—Spiral Bevel
Sbe—Spur and Bevel
Sch—Schebler
SCN—Silichrome and Chrome Nickel Steel
Se—Separate
Sho—Shore
Sil—Silichrome
Sp—Spur Gear
SP—Splitdorf
Spec—Special
SS—Semi-Steel
SST—Silichrome or Stellite
St—Stationary
Sta—Stabl-ite
Str—Stromberg
Stl—Steel
SZ—Schebler and Zenith
(t)—1000 to 1200 RPM
T—"T" head (valves opposite)
T—Trucks
Ta—Taxicabs
Tim—Timken
TPA—Thompson Products "A"
Tr—Tractors
TS—Tungsten Intake, Silichrome Exhaust
Tun—Tungsten
Win—Winfield
x—Removable Sleeves
Y—Yes
Zen—Zenith

DEPEND ON MOTOR TRANSPORT SERVICE

tion Depend Almost Entirely Upon Highway Vehicles

STATE	Communities: Total Communities	Communities: Not Served by R. R. No.	Communities: Not Served by R. R. % of All	Population: July 1, 1932	Population: Not Served by R. R. No.	Population: Not Served by R. R. % of Total
New Mexico	1,100	524	47.6	431,000	112,192	26.0
New York	5,107	2,484	48.6	12,852,000	605,834	4.7
North Carolina	3,285	1,329	40.4	3,244,000	189,038	5.8
North Dakota	1,054	192	18.2	685,000	8,182	1.2
Ohio	3,919	1,985	50.6	6,753,000	510,891	7.6
Oklahoma	2,050	834	40.6	2,440,000	112,486	4.6
Oregon	1,904	789	41.4	974,000	71,353	7.3
Pennsylvania	8,956	3,835	42.8	9,741,000	954,558	9.8
Rhode Island	280	137	48.9	698,000	77,147	11.1
South Carolina	1,902	520	27.3	1,745,000	114,955	6.6
South Dakota	1,000	379	37.9	700,000	16,873	2.4
Tennessee	3,202	1,679	52.4	2,650,000	105,450	4.0
Texas	6,710	2,265	33.7	5,964,000	216,891	3.6
Utah	1,082	374	34.5	515,000	79,938	15.5
Vermont	629	308	48.9	360,000	100,253	27.8
Virginia	4,553	2,365	51.9	2,435,000	266,661	11.0
Washington	2,655	948	35.7	1,588,000	127,582	8.0
West Virginia	4,054	1,622	40.0	1,761,000	174,598	9.9
Wisconsin	2,615	970	37.0	2,976,000	166,045	5.6
Wyoming	736	293	39.8	229,000	21,270	9.3
TOTALS	122,473	48,492	39.6	124,328,606	7,844,509	6.3

Note—Population in 15,017 communities without railroad is not available and hence not included in population figures of those communities not served by railroads. 5,492 communities have interurban electric railway service but primarily for passenger service.

AMERICAN STOCK

MAKE AND MODEL	Designed for	Recommended Load on Spring Pads (Lbs.)	Recommended Drive Shaft Torque Capacity. (Lb. Ft.)	Type	Final Drive	GEAR MATERIALS (S.A.E. Nos.)				GEAR RATIO					NOMINAL PITCH OF GEARS		FACE OF GEARS		AXLE SHAFT		
						First Reduction		Final Reduction		First Reduction			Final Reduction									
						Pinion	Gear	Pinion	Gear	Standard	Optional	Optional	Standard	Optional	First Reduction	Final Reduction	First Reduction	Final Reduction	Diameter at Differential End (Ins.)	Diameter at Wheel End (Ins.)	Material—S.A.E. No.
Clark.....R650	Trucks	††	††	FF	SB	4815	4620	.....	.....	5.14	4.50	5.57	.....	.....	3.13	.....	1.50	.....	1.50	1.37	Amo
Clark.....R750	Trucks	††	††	FF	SB	4815	4620	.....	.....	5.57	5.12	6.33	.....	.....	3.18	.....	1.62	.....	1.62	1.37	Amo
Clark.....R950	Trucks	††	††	FF	SB	4815	4620	.....	.....	5.57	6.33	6.83	.....	.....	3.00	.....	1.87	.....	1.75	1.50	Amo
Clark.....R1100	Trucks	††	††	FF	B	4815	4620	.....	.....	6.33	5.57	6.83	.....	.....	2.74	.....	2.00	.....	1.87	1.56	Amo
Clark.....B645	Trucks	††	††	FF	SB	4815	4815	.....	.....	7.16	5.75	6.42	.....	.....	2.95	.....	2.06	.....	1.93	1.75	3240
Clark.....B805	Trucks	††	††	FF	SB	4815	4815	.....	.....	7.16	5.75	6.42	.....	.....	2.81	.....	2.12	.....	2.12	1.93	X3145
Columbia.....200A	Cars	2500	1800	¾F	Hy**	4615	4615	.....	.....	4.30	.....	.....	3.10x	.....	4.46	P1	1.25	.....	1.18	1.37	4145
Columbia.....800A	Cars	3000	2500*	½F	SB**	4615	4615	.....	.....	4.30	.....	.....	3.25x	.....	4.20	P1	1.37	.....	1.31	1.50	4145
Columbia.....10000A	Cars	2500	1800*	½F	SB	4815	4615	.....	.....	4.60	.....	.....	.....	.....	4.40	.....	1.18	.....	1.18	1.37	4145
Columbia.....17000A	Cars	3000	2500*	½F	SB	4615	4615	.....	.....	4.50	.....	.....	.....	.....	4.70	.....	1.31	.....	1.31	1.50	4145
Columbia.....38000A	Cars	5000	2500*	¾F	Hy	4615	4615	.....	.....	4.60	.....	.....	.....	.....	4.90	.....	1.62	.....	1.43	1.50	4145
Eaton.....966	Trucks	.....	.....	FF	B	2512	2513	.....	.....	6.16	5.28	4.62	.....	.....	3.25	.....	1.50	.....	1.62	1.50	4145
Eaton.....1280	Trucks	.....	.....	FF	Int.	2512	4620	2340	4620	5.14	5.83	.....	1.39	.....	2.96	7-9	1.68	1.50	1.75	1.50	4145
Eaton.....1300	Trucks	.....	.....	FF	Int	2512	4620	2340	4620	5.14	5.83	.....	1.39	.....	2.96	7-9	1.68	1.50	1.75	1.50	4145
Eaton.....1640	Trucks	.....	.....	FF	SB	2512	2513	.....	.....	5.62	6.50	7.40	.....	.....	3.40	.....	1.75	.....	1.81	1.62	4145
Eaton.....1740	Trucks	.....	.....	FF	SB	2512	2513	.....	.....	6.50	7.20	5.62	.....	.....	2.79	.....	1.75	.....	2.00	1.75	.....
Eaton.....1800	Trucks	.....	.....	FF	SB	2512	2320	.....	.....	6.43	5.62	7.16	.....	.....	3.00	.....	1.87	.....	2.00	1.75	.....
Eaton.....2550	Trucks	.....	.....	FF	SB	2512	2320	.....	.....	6.43	.....	•	.....	.....	2.95	.....	2.00	.....	2.12	1.90	.....
Eaton.....2625	Trucks	.....	.....	FF	DR	2512	2315	2512	2315	2.30	2.55	1.92	3.69	.....	2.76	4.00	1.75	3.31	2.12	1.82	.....
Eaton.....2650	Trucks	.....	.....	.....	DR	2512	2315	2512	2315	1.92	2.18	2.55	3.69	.....	3.00	4.00	1.75	3.31	2.12	1.82	.....
Eaton.....2700	Trucks	.....	.....	FF	DR	2512	2315	2512	2315	2.18	1.92	2.44	3.69	.....	2.66	4.00	1.87	3.75	2.25	2.03	.....
Eaton.....D-800	Trucks	.....	.....	FF	DR	2512	2512	2512	2315	2.33	2.08	.....	2.73	3.84	1.86	3.11	2.00	4.00	2.50	2.18	.....
Eaton.....81-R	Trucks	.....	.....	FF	DR	2512	2512	2512	2315	2.33	2.08	.....	2.73	3.84	2.40	3.50	2.00	4.00	2.62	2.28	.....
Eaton.....17000	Trucks	.....	.....	FF	Int	2512	2320	2350	2320	6.43	5.62	.....	1.36	.....	3.00	6-8	2.00	1.75	2.00	1.75	.....
Eaton.....18000	Trucks	.....	.....	FF	Int	2512	2320	2350	2320	6.43	5.62	.....	1.36	.....	3.00	6-8	2.00	1.75	2.00	1.75	4145
Salisbury.....21	Cars	†2000	1583	½F	SB	4618-1	4618-1	.....	.....	Var	Var	.....	.....	.....	Var	.....	1.25	.....	1.13	1.31	4140-1
Salisbury.....31	Cars	†2200	1833	½F	SB	4618-1	4618-1	.....	.....	Var	Var	.....	.....	.....	Var	.....	1.25	.....	1.22	1.38	4140-1
Salisbury.....31-1	Cars	†2000	1833	½F	SB	4618-1	4618-1	.....	.....	Var	Var	.....	.....	.....	Var	.....	1.25	.....	1.22	1.31	4140-1
Salisbury.....31-2	Cars	†2200	1833	½F	SB	4618-1	4618-1	.....	.....	Var	Var	.....	.....	.....	Var	.....	1.25	.....	1.25	1.50	4140-1
Salisbury.....41	Cars	†2000	1750	½F	Hy.	4618-1	4618-1	.....	.....	Var	Var	.....	.....	.....	Var	.....	1.28	.....	1.18	1.31	4140-1
Salisbury.....41-1	Cars	†2200	1916	½F	Hy	4618-1	4618-1	.....	.....	Var	Var	.....	.....	.....	Var	.....	1.28	.....	1.22	1.50	4140-1
Salisbury.....42	Cars	†2200	1916	½F	SB	4618-1	4618-1	.....	.....	Var	Var	.....	.....	.....	Var	.....	1.28	.....	1.22	1.38	4140-1
Salisbury.....50	Cars	†2500	2250	½F	Hy	4618-1	4618-1	.....	.....	Var	Var	.....	.....	.....	Var	.....	1.44	.....	1.31	1.56	4140-1
Salisbury.....51	Cars	†2500	2250	½F	SB	4618-1	4618-1	.....	.....	Var	Var	.....	.....	.....	Var	.....	1.41	.....	1.31	1.56	4140-1
Salisbury.....51-1	Trucks	†3000	2416	FF	SB	4618-1	4618-1	.....	.....	Var	Var	.....	.....	.....	Var	.....	1.41	.....	1.31	1.18	4140-1
Salisbury.....51-2	Cars	†3000	2416	½F	SB	4618-1	4618-1	.....	.....	Var	Var	.....	.....	.....	Var	.....	1.41	.....	1.31	1.65	4140-1
Salisbury.....52	Cars	†2500	2416	½F	Hy.	4618-1	4618-1	.....	.....	Var	Var	.....	.....	.....	Var	.....	1.44	.....	1.31	1.56	4140-1
Timken.....53300	Trucks	.....	††	FF	SB	4620	4620	.....	.....	6.60	5.66	5.14	.....	.....	12.62	.....	1.69	.....	1.75	1.50	.....
Timken.....54411	Trucks	.....	††	FF	SB	4620	4620	.....	.....	5.83	6.80	4.87	.....	.....	13.12	.....	1.94	.....	1.75	1.56	4130
Timken.....56410	Trucks	.....	††	FF	SB	4620	4620	.....	.....	6.17	6.83	7.40	.....	.....	14.37	.....	2.18	.....	1.87	1.62	3240
Timken.....58205	Trucks	.....	††	FF	SB	4620	4620	.....	.....	6.83	5.57	7.80	.....	.....	16.00	.....	2.60	.....	2.00	1.81	4340
Timken.....64800	Trucks	.....	††	FF	Wo	4620	4620	.....	.....	6.00	6.40	7.40	.....	.....	.....	.....	.....	.....	1.87	1.75	3240
Timken.....65205	Trucks	.....	††	FF	Wo	4620	4620	.....	.....	7.50	6.75	8.75	.....	.....	.....	.....	.....	.....	2.00	1.81	4340
Timken.....65725	Trucks	.....	††	FF	Wo	4620	4620	.....	.....	8.50	6.80	7.75	.....	.....	.....	.....	.....	.....	2.23	1.81	4340
Timken.....66725	Trucks	.....	††	FF	Wo	4620	4620	.....	.....	8.20	6.80	10.25	.....	.....	.....	.....	.....	.....	2.35	1.93	4340
Timken.....68720	Trucks	.....	††	FF	Wo	4620	4620	.....	.....	10.00	11.75	8.75	.....	.....	.....	.....	.....	.....	2.69	2.31	4340
Timken.....74411	Trucks	.....	††	FF	DR	4820	4820	4615	4615	.....	.....	.....	7.35	8.21	.....	.....	.....	.....	1.75	1.56	4130
Timken.....75733	Trucks	.....	††	FF	DR	4820	4820	4324	4620	2.25	.....	.....	9.41	8.46	9.12	12.55	1.87	3.50	2.25	1.81	4340
Timken.....76410	Trucks	.....	††	FF	DR	4820	4820	4615	4620	.....	.....	.....	7.35	8.21	.....	.....	.....	.....	1.87	1.62	3240
Timken.....76733	Trucks	.....	††	FF	DR	4820	4820	4324	4615	1.91	.....	.....	9.20	8.51	9.50	14.34	2.25	3.75	2.35	1.93	4340
Timken.....79730	Trucks	.....	††	FF	DR	4820	4820	4324	4620	2.22	.....	.....	9.48	10.31	10.00	15.93	2.25	4.50	2.65	2.18	4340
Wisconsin.....5000-L	T,Bu	Var	Var	FF	DR	4820	4820	4620	4620	2.10	.....	.....	6.62	7.35	2.70	.800	1.75	2.00	1.87	.....	3240
Wisconsin.....72000-L	T,Bu	Var	Var	FF	DR	4820	4820	4620	4620	2.10	.....	.....	6.36	7.27	2.40	.750	1.88	2.75	2.00	.....	3240
Wisconsin.....1337-BH	T,Bu	Var	Var	FF	DR	4820	4820	4340	4620	2.10	.....	.....	6.36	7.27	2.50	.750	2.25	2.75	2.25	.....	3240
Wisconsin.....1757-W	T,Bu	Var	Var	FF	DR	4820	4820	4340	4620	1.90	.....	.....	8.50	9.20	2.40	H-5.0	2.50	3.75	2.50	.....	3240
Wisconsin.....1910-W	T,Bu	Var	Var	FF	DR	4820	4820	4620	4620	2.30	.....	.....	8.88	10.00	2.50	.750	2.50	3.00	2.75	.....	4340

*—One Shaft °—Others also
**—With Planetary Overdrive
†—Nominal Load on Tires
††—Recommendations of axle sizes are made only after complete specifications have been submitted by vehicle manufacturer
‡—Less brakes and wheels
⅛F—Semi Floating
¾F—Three Quarters floating
2-S—Two Shoe
AA—Above axle
AB—Above or Below Axle
Amo—Amola Steel
B—Bevel-Straight
BA—Below Axle
Ben—Bendix
Bu—Buses

ABBREVIATIONS
CS—Cast Steel
DR—Double Reduction
EP—Extreme Pressure
FF—Full floating

REAR AXLES

RANGE OF SPRING CENTERS						Differential			SERVICE BRAKE					TYPE OF BEARINGS					Axle Housing Material S.A.E. Numbers	Minimum Road Clearance With Regular Tire Size (Ins.)	Tread (Ins.)	Weight (Lbs.)	Recommended Lubrication	MAKE AND MODEL
Maximum	Minimum	Torque taken by—	Propulsion taken by—	Provision for Radius Rods	Location of Spring Pads	Make	Type	Number of Pinions	Make	Type	Diameter of Drum (Ins.)	Lining: Width (Ins.)	Lining: Thickness (Ins.)	First Reduction Pinion	Final Reduction Pinion	At Differential	At Wheels	On Pinion Shaft					
36.87	.....	Sp	Sp	....	AA	Own	B	2	Own	IH	14	2.00	.250	Roller	.....	Roller	Roller	Roller	1035HT	6 1/16–28	59 5/8	240	Oil	Clark.....R650
39.50	.....	Sp	Sp	....	AA	Own	B	2	Own	IH	15¼	2.25	.312	Roller	.....	Roller	Roller	Roller	1035HT	8 1/16–32	63	284	Oil	Clark.....R750
39.50	.....	Sp	Sp	....	AA	Own	B	4	Own	IH	16¼	2.50	.312	Roller	.....	Roller	Roller	Roller	1035HT	8¾–34	65	354	Oil	Clark.....R950
39.50	.....	Sp	Sp	....	AA	Own	B	4	Own	IH	16¼	3.50	.375	Roller	.....	Roller	Roller	Roller	1035HT	9¾–36	67½	447	Oil	Clark.....R1100
41.00	37.50	Sp	Sp	....	....	Fair	B	4	Own	IH	17¼	4.00	.312	Roller	.....	Roller	Roller	Roller	CS	9¼–38	70¼	576	Oil	Clark.....B645
41.00	37.50	Sp	Sp	....	....	Fair	B	4	Own	IH	17¾	4.00	.312	Roller	.....	Roller	Roller	Roller	CS	9¼–38	69¾	634	Oil	Clark.....B805
		Sp	Sp	No	BA	WG	B	2	NBF							Roller	Roller	Roller	1010	.....	62	.....	EP	Columbia.....200A
46	40	Sp	Sp	No	BA	WG	B	2	NBF							Roller	Roller	Roller	1010	.....	62	.....	EP	Columbia.....800A
46	40	Sp	Sp	No	BA	WG	B	2	NBF							Roller	Roller	Roller	1010	.....	62	.....	EP	Columbia.....10000A
46	40	Sp	Sp	No	BA	WG	B	2	NBF							Roller	Roller	Roller	1010	.....	62	.....	EP	Columbia.....17000A
46	40	Sp	Sp	No	BA	WG	B	2	Wag	IH	13⅜	2.00	.375	.....	.....	Roller	Roller	Roller	1010	.....	61	.....	EP	Columbia.....38000A
38 1/16	.....	Sp	Sp	No	AA	Own	B	2	Ben	IH	14	2.00	.....	Roller	.....	Roller	Roller	Roller	MI	.....	60¼	.....	EP	Eaton.....966
42	.....	Sp	Sp	No	AA	Own	B	4	Wag	IH	16¼	3.50	.....	Roller	.....	Roller	Roller	Roller	MI	.....	65¼	.....	EP	Eaton.....1280
41	.....	Sp	Sp	No	AA	Own	B	4	Wag	IH	16¼	3.50	.....	Roller	.....	Roller	Roller	Roller	MI	.....	65 1/16	.....	EP	Eaton.....1300
39½	.....	Sp	Sp	No	AA	Own	B	4	Wag	IH	16¼	3.50	.....	Ball	.....	Roller	Roller	Ball	MI	.....	66	.....	EP	Eaton.....1640
39¼	.....	Sp	Sp	No	AA	Own	B	4	Wag	IH	17⅜	4.00	.....	Roller	.....	Roller	Roller	Roller	MI	.....	69	.....	EP	Eaton.....1740
39½	.....	Sp	Sp	No	AA	Own	B	4	Wag	IH	17¼	5.00	.....	Roller	.....	Roller	Roller	Roller	MI	.....	70½	.....	EP	Eaton.....1800
40 1/16	.....	Sp	Sp	No	AA	Own	B	4	Ben	IH	17	4.00	.....	Roller	.....	Roller	Roller	Roller	MI	.....	71½	.....	EP	Eaton.....2550
39½	.....	Sp	Sp	No	AA	Own	B	4	Wag	IH	17¼	5.00	.....	Roller	Roller	Ball	Roller	Roller	MI	.....	70½	.....	EP	Eaton.....2625
40 1/16	.....	Sp	Sp	No	AA	Own	B	4	Ben	IH	17	4.00	.....	Roller	Roller	Ball	Roller	Roller	MI	.....	71½	.....	EP	Eaton.....2650
40 1/16	.....	Sp	Sp	No	AA	Own	B	4	T-W	2-S	17¼	5.50	.....	Roller	Roller	Ball	Roller	Roller	MI	.....	72⅝	.....	EP	Eaton.....2700
41	.....	Sp	Sp	No	AA	Own	B	4	T-W	2-S	17¼	5.50	.....	Ball	Ball	Ball	Roller	Ball	MI	.....	72 1/16	.....	EP	Eaton.....D800
40	.....	Sp	Sp	No	AA	Own	B	4	T-W	2-S	17⅛	5.50	.....	Ball	Ball	Ball	Roller	Ball	MI	.....	71¼	.....	EP	Eaton.....81R
39½	.....	Sp	Sp	No	AA	Own	B	4	Wag	IH	17⅜	4.00	.....	Roller	.....	Roller	Roller	Roller	MI	.....	69	.....	EP	Eaton.....17000
39½	.....	Sp	Sp	No	AA	Own	B	4	Wag	IH	17¼	5.00	.....	Roller	.....	Roller	Roller	Roller	MI	.....	70½	.....	EP	Eaton.....18000
Var	Var	Sp	Sp	No	BA	Own	B	2	Var	Var	Var	Var	Var	Roller	.....	Roller	Ball	Roller	1020	Var	Var	‡102	Oil	Salisbury.....21
Var	Var	Sp	Sp	No	BA	Own	B	2	Var	Var	Var	Var	Var	Roller	.....	Roller	Ball	Roller	1020	Var	Var	‡110	Oil	Salisbury.....31
Var	Var	Sp	Sp	No	BA	Own	B	2	Var	Var	Var	Var	Var	Roller	.....	Roller	Ball	Roller	1020	Var	Var	‡108	Oil	Salisbury.....31-1
Var	Var	Sp	Sp	No	BA	Own	B	2	Var	Var	Var	Var	Var	Roller	.....	Roller	Roller	Roller	1020	Var	Var	‡115	Oil	Salisbury.....31-2
Var	Var	Sp	Sp	No	BA	Own	B	2	Var	Var	Var	Var	Var	Roller	.....	Roller	Roller	Roller	1020	Var	Var	‡120	Oil	Salisbury.....41
Var	Var	Sp	Sp	No	BA	Own	B	2	Var	Var	Var	Var	Var	Roller	.....	Roller	Roller	Roller	1020	Var	Var	‡122	Oil	Salisbury.....41-1
Var	Var	Sp	Sp	No	BA	Own	B	2	Var	Var	Var	Var	Var	Roller	.....	Roller	Ball	Roller	1020	Var	Var	‡116	Oil	Salisbury.....42
Var	Var	Sp	Sp	No	BA	Own	B	2	Var	Var	Var	Var	Var	Roller	.....	Roller	Roller	Roller	1020	Var	Var	‡146	Oil	Salisbury.....50
Var	Var	Sp	Sp	No	BA	Own	B	2	Var	Var	Var	Var	Var	Roller	.....	Roller	Roller	Roller	1020	Var	Var	‡140	Oil	Salisbury.....51
Var	Var	Sp	Sp	No	BA	Own	B	2	Var	Var	Var	Var	Var	Roller	.....	Roller	Roller	Roller	1035	Var	Var	‡155	Oil	Salisbury.....51-1
Var	Var	Sp	Sp	No	BA	Own	B	2	Var	Var	Var	Var	Var	Roller	.....	Roller	Ball	Roller	1020	Var	Var	‡150	Oil	Salisbury.....51-2
Var	Var	Sp	Sp	No	BA	Own	B	2	Var	Var	Var	Var	Var	Roller	.....	Roller	Roller	Roller	1020	Var	Var	‡146	Oil	Salisbury.....52
41	39	Sp	Sp	No	AA	Own	B	4	Opt	Opt	Opt	Opt	Opt	Roller	.....	Roller	Roller	Roller	.....	.....	65	.....	.....	Timken.....53300
40	39	Sp	Sp	Yes	AA	Own	B	4	Opt	Opt	16.0	Opt	Opt	Roller	.....	Roller	Roller	Roller	1010	.....	65¼	.....	.....	Timken.....54411
42	39	Sp	Sp	Yes	AA	Own	B	4	Opt	Opt	16.0°	Opt	Opt	Roller	.....	Roller	Roller	Roller	1010	.....	69¾	.....	.....	Timken.....56410
41	39	Sp	Sp	Yes	AA	Own	B	4	Opt	Opt	17¼	4.0	.....	Roller	.....	Roller	Roller	Roller	MI	.....	69½	.....	.....	Timken.....58205
41	39	Sp	Sp	Yes	AA	Own	B	4	Opt	Opt	16.0	3½	.....	Roller	.....	Roller	Roller	Roller	MI	.....	67 1/16	.....	.....	Timken.....64800
41	39	Sp	Sp	Yes	AA	Own	B	4	Opt	Opt	17¼	4.0	.....	Roller	.....	Roller	Roller	Roller	MI	.....	69½	.....	.....	Timken.....65205
41	39	Sp	Sp	Yes	AA	Own	B	4	Opt	Opt	17¼	5.0	.....	Roller	.....	Roller	Roller	Roller	1010	.....	70	.....	.....	Timken.....65725
41	39½	Sp	Sp	Yes	AA	Own	B	4	Opt	Opt	17¼	5.0	.....	Roller	.....	Roller	Roller	Roller	1010	.....	72¼	.....	.....	Timken.....66725
41½	.....	Sp	Sp	Yes	AA	Own	B	4	Opt	Opt	21	.....	.....	Roller	.....	Roller	Roller	Roller	1010	.....	72¼	.....	.....	Timken.....68720
40	39	Sp	Sp	Yes	AA	Own	B	4	Opt	Opt	16	Opt	.....	.....	Roller	Roller	Roller	Roller	1010	.....	65¼	.....	.....	Timken.....74411
41	39	Sp	Sp	Yes	AA	Own	B	4	Opt	Opt	17¼	5.0	.....	Roller	Roller	Ball	Roller	Roller	1010	.....	70	.....	.....	Timken.....75733
42	39	Sp	Sp	Yes	AA	Own	B	4	Opt	Opt	18°	Opt	Opt	.....	Roller	Ball	Roller	Roller	1010	.....	69¾	.....	.....	Timken.....76410
41	39½	Sp	Sp	Yes	AA	Own	B	4	Opt	Opt	17¼	5½	Opt	Roller	Roller	Ball	Roller	Roller	1010	.....	72¼	.....	.....	Timken.....76733
41½	.....	Sp	Sp	....	AA	Own	B	4	Opt	Opt	21	5½	.....	Roller	Roller	Ball	Roller	Roller	1010	.....	72¼	.....	.....	Timken.....79730
41	36	Sp	Sp	Yes	AB	Own	B	4	Lock	Hy	16	3½	¼	Roller	Roller	Ball	Roller	Roller	MI	11–36	66	780	O-EP	Wisconsin.....5000L
41	37	Sp	Sp	No	AB	Own	B	4	Lock	Hy	17¼	4.0	1/16	Roller	Roller	Ball	Roller	Roller	MI	12–38	69½	960	Oil	Wisconsin.....72000L
41½	36	Sp	Sp	Yes	AB	Own	B	4	Lock	Hy	17¼	5.0	1/16	Roller	Roller	Ball	Roller	Roller	MI	11–38	69½	1275	Oil	Wisconsin.....1337-BH
41	39	Sp	Sp	Yes	AB	Own	B	4	West	Air	17¼	5.0	¾	Roller	Roller	Roller	Roller	Roller	MI	11½–40	71½	1520	Oil	Wisconsin.....1757-W
41	39	Sp	Sp	Yes	AB	Own	B	4	West	Air	17¼	5.0	¾	Roller	Roller	Ball	Roller	Roller	MI	12½–42	71½	1565	Oil	Wisconsin.....1910-W

ABBREVIATIONS—Continued

Fair—Fairfield
H—Herringbone
HT—Heat Treated
IH—Internal Hydraulic
Hy—Hydraulic
Int—Internal Gear
Lock—Lockheed
MI—Malleable Iron
NBF—No brakes furnished
O-EP—Oil or Extreme pressure
Opt—Optional
PI—Planetary type reduction
SB—Spiral Bevel
Sp—Springs
T—Trucks
T-W—Timken Westinghouse
Var—Various or Variable
Wag—Wagner
West—Westinghouse
WG—Warner Gear
Wo—Worm
x—In overdrive on 2 speed planetary type

AMERICAN STOCK

MAKE AND MODEL	Designed for	No. of Forward Speeds	Direct Drive On	GEAR RATIOS							Type	BEARINGS			Inside distance between bearings on Main Shaft (Ins.)	Distance between center lines of Main & Countershafts (Ins.)	Type of Direct Drive Clutch	TYPE OF GEAR		
				Low	Second	Third	Fourth	Fifth	Reverse	Overdrive		Main Shaft	Pilot	Countershaft				Low	Second	Third
Brown-Lipe.....221	T, Tr.	2	1	1.00	.75†	.....	.....	.....	.....	.75†	Con	Ball	Rol	Rol	.....	4.00	G-T	Dir	Sp	.....
Brown-Lipe.....222	T, Tr.	2	2	1.52†	1.00	.....	.....	.....	.....	.....	Con	Ball	Rol	Rol	.....	4.00	G-T	Sp	Dir	.....
Brown-Lipe.....231	T, Tr.	2	1	.....	.....	.....	.....	.....	.....	.75†	Con	Ball	Rol	Rol	.....	4.00	G-T	Dir	Sp	.....
Brown-Lipe.....232	T, Tr.	2	2	1.52°	.....	.....	.....	.....	.....	1.52†	Con	Ball	Rol	Rol	.....	4.00	G-T	Sp	Dir	.....
Brown-Lipe.....1431	Buses	3	3	2.78	1.86	1.00	.....	.....	3.37	.....	Con	Ball	Rol	Rol	.....	4.09	G-T	Sp	Hl	Dir
Brown-Lipe.....2252	Trucks	5	5	7.32	4.25	2.75	1.40	1.00	7.32	.....	Con	Ball	Rol	B&R	.....	4.42	G-T	Sp	Sp	Hl
Brown-Lipe.....2253	Trucks	5	4	6.15	3.58	1.86	1.00	.77	6.15	.77	C&C	Ball	Rol	Ball	.....	4.42	G-T	Sp	Sp	Hl
Brown-Lipe.....2341	T, B, Tr.	4	4	6.27	3.04	1.65	1.00	.....	7.55	.....	C&C	Ball	Rol	B&R	.....	4.21	G-T	Sp	Sp	Hl
Brown-Lipe.....2352	Trucks	5	5	7.70	4.55	2.35	1.45	1.00	7.70°	.....	Con	Ball	Rol	B&R	.....	4.75	G-T	Sp	Sp	Hl
Brown-Lipe.....2353	Trucks	5	4	6.12	3.62	1.87	1.00	.79	6.12°	.79	Con	Ball	Rol	B&R	.....	4.75	G-T	Sp	Sp	Hl
Brown-Lipe.....3221	T, Tr.	2	1	1.00	.79	.....	.....	.....	.....	.79	Con	Ball	Ball	Ball	.....	4.75	G-T	Dir	Sp	.....
Brown-Lipe.....3222	T, Tr.	2	2	2.15†	1.00	.....	.....	.....	.....	2.15†	Con	Ball	Ball	Ball	.....	4.75	G-T	Hl	Dir	.....
Brown-Lipe.....3241	Trucks	4	4	7.00	3.90	1.86	1.00	.....	8.10	.....	C&C	B&R	Rol	Ball	.....	4.75	G-T	Sp	Sp	Hl
Brown-Lipe.....3341	T, B	4	4	6.30	3.51	1.68	1.00	.....	7.29	.....	C&C	B&R	Rol	Ball	.....	4.75	G-T	Sp	Sp	Hl
Brown-Lipe.....3352	Trucks	5	5	7.93	4.58	2.47	1.46	1.00	7.93°	.....	C&C	Ball	Rol	B&R	.....	5.50	G-T	Sp	Sp	Hl
Brown-Lipe.....3353	Trucks	5	4	6.54	3.77	1.92	1.00	.77	6.54	.77	C&C	Ball	Rol	B&R	.....	5.50	G-T	Sp	Sp	Hl
Brown-Lipe.....3440	Trucks	4	3	3.87	1.86	1.00	.73	.....	4.48	.73	C&C	B&R	Rol	B&R	.....	4.75	G-T	Sp	Sp	Dir
Brown-Lipe.....3481	Trucks	8	7	8.31	4.00	3.87	2.15	1.86°	9.62°	.73	C&C	B&R	Rol	Ball	.....	4.75	G-T	Sp	Sp	Hl
Brown-Lipe.....5031	Buses	3	3	4.03	1.98	1.00	.....	.....	4.96	.....	C&C	B&R	Rol	Rol	.....	4.25	G-T	Sp	Hl	.....
Brown-Lipe.....5221	T, Tr.	2	1	1.00	2.34†	.....	.....	.....	.....	2.34†	Con	Ball	Ball	Ball	.....	5.50	G-T	Dir	Hl	.....
Brown-Lipe.....5222	T, Tr.	2	2	2.34	1.00	.....	.....	.....	.....	.....	Con	Ball	Ball	Ball	.....	5.50	G-T	Hl	Dir	.....
Brown-Lipe.....5241	Trucks	4	4	7.15	3.45	1.83	1.00	.....	8.13	.....	C&C	B&R	Rol	Ball	.....	5.50	G-T	Sp	Sp	Hl
Brown-Lipe.....5251	Trucks	5	4	7.15	3.45	1.83	1.00	.80	8.13	.80	C&C	B&R	Rol	Ball	.....	5.50	G-T	Sp	Sp	Sp
Brown-Lipe.....5331	Buses	3	3	3.72	1.88	1.00	.....	.....	4.21	.....	C&C	Ball	Rol	Ball	.....	4.75	G-T	Hl	Hl	Dir
Brown-Lipe.....5341	T, B	4	4	6.63	3.20	1.70	1.00	.....	7.53	.....	C&C	B&R	Rol	Ball	.....	5.50	G-T	Sp	Sp	Hl
Brown-Lipe.....5351	Trucks	5	4	6.63	3.20	1.70	1.00	.74	7.53	.74	C&C	B&R	Rol	Ball	.....	5.50	G-T	Sp	Sp	Hl
Brown-Lipe.....5352	Trucks	5	5	7.70	4.85	2.56	1.43	1.00	7.80	.....	C&C	B&R	Rol	Ball	.....	5.50	G-T	Sp	Sp	Sp
Brown-Lipe.....5440	T, Tr.	4	3	3.90	1.88	1.00	.75	.....	4.43	.75	C&C	B&R	Rol	B&R	.....	5.50	G-T	Sp	Sp	Dir
Brown-Lipe.....6031	Trucks	3	2	2.22	1.00	.69	.....	.....	.....	.69	Con	Rol	Rol	Rol	.....	5.10	G-T	Hl	Hl	.....
Brown-Lipe.....7131	Buses	3	3	3.80	1.74	1.00	.....	.....	3.41	.....	C&C	Ball	Ball	Rol	.....	6.50	G-T	Hl	Hl	Hl
Brown-Lipe.....7241	T, B, Tr.	4	4	7.10	3.89	1.96	1.00	.....	9.24	.....	C&C	B&R	Ball	B&R	.....	6.50	G-T	Sp	Sp	Hl
Brown-Lipe.....7341	T, B, Tr.	4	4	6.27	3.43	1.73	1.00	.....	8.15	.....	C&C	B&R	Ball	B&R	.....	6.50	G-T	Sp	Sp	Hl
Brown-Lipe.....7351	T, Tr.	5	4	6.27	3.43	1.73	1.00	.67	8.15	.67	Con	B&R	Rol	B&R	.....	6.50	G-T	Sp	Sp	Hl
Brown-Lipe.....7440	T, Tr.	4	3	3.72	2.04	1.00	.77	.....	4.84	.77	C&C	B&R	Ball	B&R	.....	6.50	G-T	Sp	Sp	Dir
Clark.....170FS	Trucks	4	4	6.57	3.53	1.74	1.00	.....	7.88	.....	Cl	Ball	Rol	Rol	8 1/16	4.07	G-T	Sp	Sp	Sp
Clark.....B-300	Trucks	4	4	6.57	3.58	1.73	1.00	.....	7.88	.....	Cl	Ball	Rol	Rol	8 3/16	4.07	G-T	Sp	Sp	Sp
Clark.....301	Tr., A	4	4	3.70	2.54	1.92	1.00	.....	4.44	.....	Cl	Ball	Rol	Rol	8 5/16	4.07	G-T	Sp	Sp	Sp
Clark.....185-F	Trucks	4	4	6.35	3.31	1.73	1.00	.....	7.54	.....	C&C	Ball	Rol	B&R	8 1/16	4.33	G-T	Sp	Sp	Hl
Clark.....200-V	T, B	5	5	7.58	4.38	2.40	1.48	1.00	6.10	Op	C&C	Ball	Rol	B&R°	11 1/16	4.75	G-T	Sp	Sp	Hl
Clark.....200-VO	T, B	5	4	6.06	3.50	1.91	1.00	.....	4.87	.799	C&C	Ball	Rol	B&R	11 1/16	4.75	G-T	Sp	Sp	Hl
Clark.....201-V	T, Tr.	5	5	7.58	4.38	3.05	1.48	1.00	6.11	.....	C&C	Ball	Rol	B&R	11 1/16	4.75	G-T	Sp	Sp	Hl
Clark.....202-V	T, B	5	5	7.58	4.38	3.05	1.72	1.00	6.11	.....	C&C	Ball	Rol	B&R	11 1/16	4.75	G-T	Sp	Sp	Hl
Clark.....202-VO	T, B	5	4	5.25	3.15	1.80	1.00	.799	3.88	.799	C&C	Ball	Rol	B&R	11 1/16	4.75	G-T	Sp	Sp	Hl
Clark.....230-F	Buses	4	4	5.00	3.07	1.71	1.00	.....	5.83	.....	C&C	Ball	Rol	B&R	10 1/2	4.33	G-T	Sp	Hl	Hl
Clark.....231-F	Trucks	4	4	6.35	3.37	1.72	1.00	.....	7.40	.....	C&C	Ball	Rol	B&R	10 1/2	4.33	G-T	Sp	Hl	Hl
Clark.....270-V	T, B	5	5	7.88	4.46	2.63	1.48	1.00	7.88	Op	C&C	Ball	Rol	B&R°	13 3/8	5.50	G-T	Sp	Sp	Hl
Clark.....270-VO	T, B	5	4	7.00	3.97	1.90	1.00	.....	7.00	.788	C&C	Ball	Rol	B&R	13 3/8	5.50	G-T	Sp	Sp	Hl
Clark.....325-V	T, B	5	5	8.05	4.69	2.57	1.45	1.00	8.05	Op	C&C	Ball	Rol	B&R°	15 1/4	5.90	G-T	Sp	Sp	Hl
Clark.....325-VO	T, B	5	4	7.08	4.12	1.90	1.00	.....	8.05	.768	C&C	Ball	Rol	B&R	15 1/4	5.90	G-T	Sp	Sp	Hl
Clark.....425-VO	Trucks	5	4	6.50	3.82	1.67	1.00	.79	8.00	.79	C&C	Ball	Rol	Ball	16 1/16	6.95	G-T	Sp	Sp	Sp
Cotta.....A	T, B, Tr.	4	4	5.20	3.68	1.85	1.00	.....	4.66	.....	Con	Ball	Rol	B&G	12 1/2	4.50	Jaw	Sp	Sp	Sp
Cotta.....FA	T, Tr.	3	3	4.00	2.00	1.00	.....	.....	4.12	.....	Con	Ball	Rol	B&G	16 1/2	6.75	Jaw	Sp	Sp	.....
Cotta.....FAA	T, Tr.	1–2	2	4.75	1.00	.....	.....	.....	4.12	.....	Con	Ball	Rol	B&G	8 1/2	6.75	Jaw	Sp	Sp	.....
Cotta.....JR	.....	1	1	.....	.....	.....	.....	.....	1.00	.....	Con	Ball	Rol	Rol	5 3/8	4.50	Jaw	Sp	.....	.....
Cotta.....RAU	T, Tr., B	3	3	3.68	1.85	1.00	.....	.....	4.66	.....	Con	Ball	Rol	Ball	11 1/2	4.90	Jaw	Sp	Sp	Sp
Cotta.....SAU	T, Tr., B	3	3	3.68	1.85	1.00	.....	.....	4.66	.....	Con	Ball	Rol	Ball	13	5.40	Jaw	Sp	Sp	Sp
Cotta.....TAU	T, Tr., B	3	3	5.20	2.50	1.00	.....	.....	4.66	.....	Con	Ball	Rol	Ball	14 1/4	6.00	Jaw	Sp	Sp	Sp
Cotta.....T	T, Tr., B	4	4	5.20	3.68	1.85	1.00	.....	4.66	.....	Con	Ball	Rol	Ball	18 1/2	6.00	Jaw	Sp	Sp	Sp
Cotta.....TS	T, Tr.	1–2	1	5.20	1.00	.....	.....	.....	4.66	.....	Con	Ball	Rol	Ball	7 1/4	6.00	Jaw	Sp	Sp	.....
Cotta.....ZA	Buses	3	3	2.88	1.56	1.00	.....	.....	4.46	.....	C&C	Ball	Rol	Ball	14	5.50	G-T	Sp	Sp	Sp
Cotta Gear.....45U-5	T, B	5	5	8.50	4.63	2.92	1.59	1.00	5.95°	.....	Con	Ball	Ball	Ball	10 3/4	4.50	Jaw	S or H	S or H	S or H
Cotta Gear.....6U-4H	Trucks	4	4	7.40	3.20	1.57	1.00	.....	7.40	.....	Con	Ball	Rol	Ball	10 5/8	4.07	Jaw	Sp	He	He
Cotta Gear.....8U-5H	T, B	5	5	8.50	4.63	2.92	1.59	1.00	9.00°	.....	Con	Ball	Rol	Ball	10 1/2	4.50	Jaw	He	He	He
Cotta Gear.....65	T, B	5	5	8.31	4.75	2.80	1.60	1.00	6.33°	.....	Con	Ball	Rol	Ball	12 1/2	5.40	Jaw	He	He	He
Cotta Gear.....55	T, B	5	5	8.31	4.75	2.80	1.60	1.00	11.08°	.....	Con	Ball	Rol	Ball	11 3/8	5.00	Jaw	He	He	He
Detroit.....SM-400-AA	Cars	3	3	2.87	1.56	1.00	.....	.....	3.76	.....	Syn	Ball	Ball	Pla	8 11/16	3.28	G-T	Sp	Hl	Dir
Detroit.....SM-400-BB	Cars	3	3	2.87	1.56	1.00	.....	.....	3.76	.....	Syn	Ball	Rol	Pla	8 11/16	3.28	G-T	Sp	Hl	Dir
Detroit.....SM-400-FF	Cars, Taxis	3	3	2.87	1.68	1.00	.....	.....	3.76	.....	Syn	Ball	Rol	Pla	8 11/16	3.28	G-T	Sp	Hl	Dir
Detroit.....SM-400-ZA	.....	3	3	2.87	1.68	1.00	.....	.....	3.75	.....	.....	Ball	Rol	Pla	8 11/16	3.28	G-T	Sp	Hl	Dir
Fuller.....5A-33, 5B-33	T, B, Tr.	5	5	7.53	4.30	2.52	1.42	1.00	7.37	.....	C&C	Ball	Rol	B&R	12.02	4.50	G-T	Sp	Sp	Hl
Fuller....5A-330, 5B-330	T, B, Tr.	5	4	6.10	3.48	2.04	1.00	.768	5.96	.768	C&C	Ball	Rol	B&R	12.02	4.50	G-T	Sp	Sp	Hl
Fuller.....2A-53	Trucks	2	2	1.58	1.00	.....	.....	.....	No	.....	Con	Ball	Rol	Ball	5.09	5.83	G-T	He	Sp	.....
Fuller.....2A-53	Trucks	2	2	2.08	1.00	.....	.....	.....	No	.....	Con	Ball	Rol	Ball	5.09	5.83	G-T	He	Sp	.....
Fuller.....5A-38	T, B	5	5	7.90	4.72	2.40	1.42	1.00	(c)	.....	C&C	Ball	Ball	Ball	13.25	5.41	G-T	Sp	Sp	Hl
Fuller.....5A-390	T, B	5	4	7.00	4.18	1.93	1.00	.785	(e)	.785	C&C	Ball	Ball	Ball	13.25	5.41	G-T	Sp	Sp	Hl
Fuller.....5A-43	T, B	5	5	8.03	4.61	2.46	1.41	1.00	(f)	.....	C&C	Ball	Rol	B&R	13.77	5.41	G-T	Sp	Sp	Hl
Fuller.....5A-430	T, B	5	4	6.52	3.33	1.77	1.00	.771	(g)	.771	C&C	Ball	Rol	B&R	13.77	5.41	G-T	Sp	Sp	Hl
Fuller.....3AY	Trucks	3	2	1.99	1.00	.77	.....	.....	No	.....	Con	Ball	Ball	Ball	15.50	6.10	G-T	He	He	Sp
Fuller.....2SC-2.75	T, B	2	2	2.75	1.00	.....	.....	.....	No	.....	Cl	Ball	Ball	Ball	4.66	3.84	G-T	Sp	Sp	.....
Fuller.....5A-620	T, B	5	4	7.07	3.50	1.72	1.00	.776	(h)	.776	C&C	Ball	Rol	B&R	15.31	5.83	G-T	Sp	Sp	Hl
Fuller.....5A-62	T, B	5	5	8.08	4.67	2.62	1.38	1.00	(k)	.....	C&C	Ball	Rol	B&R	15.31	5.83	G-T	Sp	Sp	Hl
Fuller.....MHU	T, B	4	4	6.27	3.17	1.74	1.00	.....	7.94	.....	Cl	Ball	Ball	Ball	12.25	5.25	G-T	Sp	Sp	Sp
Fuller.....MLU	Trucks	4	4	6.36	3.57	1.78	1.00	.....	7.85	.....	Cl	Ball	Rol	Ball	8.94	4.08	G-T	Sp	Sp	Sp
Fuller.....MRU	Trucks	4	4	6.66	3.45	1.82	1.00	.....	7.92	.....	Cl	Ball	Ball	Ball	10.50	5.10	G-T	Sp	Sp	Sp
Fuller.....MGU	T, B	4	4	6.50	3.70	1.90	1.00	.....	7.80	.....	Cl	Ball	Ball	Ball	8.42	4.50	G-T	Sp	Sp	Sp
Fuller.....WO-BB	Trucks	4	4	6.16	3.18	1.75	1.00	.....	7.25	.....	Cl	B&R	Rol	Rol	5.87	3.92	G-T	Sp	Sp	Sp
Mann-MacKenzie.....B	Trucks	3	2	1.56	1.00	.....	.....	.....	No	.72	Con	Ball	Rol	Ball	7 1/16	4.50	G-T	Cs	Cs	.....
Mann-MacKenzie...200	Buses	4	4	5.00	2.85	1.70	1.00	.....	4.36	.....	Con	B&R	Rol	B&R	9 1/2	4.50	G-T	Ch	Ch	Ch
Mann-MacKenzie U-300	T, B	4	4	5.06	2.80	1.64	1.00	.....	4.66	.....	Con	Rol	Rol	Rol	12 1/2	6.00	G-T	Cs	Cs	Cs
Mann-MacKenzie M300	T, B	4	4	5.06	2.80	1.64	1.00	.....	4.66	.....	Con	Rol	Rol	Rol	12 1/2	6.00	G-T	Cs	Cs	Cs
Mann-MacKenzie...600	Buses	4	4	5.22	2.78	1.67	1.00	.....	4.06	.....	Con	Rol	Rol	Rol	12 1/2	6.00	G-T	Ch	Ch	Ch
Mann-M'Kenzie..600Ov.	Buses	4	3	3.49	1.85	1.00	.....	.....	3.22	.75	Con	Rol	Rol	Rol	12 1/2	6.00	G-T	Ch	Ch	Ch
Warner Gear.....T9	Trucks	4	4	6.40	3.09	1.69	1.00	.....	7.82	.....	Cl	Ball	Rol	Rol	7 1/16	4.28	G-T	Sp	Sp	Sp
Warner Gear.....T86	Cars	3	3	2.57	1.55	1.00	.....	.....	3.48	.708	Csy	Ball	Rol	Rol	13	3.00	G-T	Hl	Hl	Hl
Warner Gear.....T85	Cars	3	3	2.52	1.51	1.00	.....	.....	3.15	.681	Csy	Ball	Rol	Rol	8.50	3.25	G-T	Hl	Hl	Hl
Warner Gear.....T83	C, T	3	3	2.81	1.60	1.00	.....	.....	3.38	.....	Csy	Ball	Rol	BB	7.06	2.93	G-T	Hl	Hl	Sp
Warner Gear.....T82-A	.....	3	3	2.69	1.56	1.00	.....	.....	3.23	.705	Csy	Ball	Rol	BB	9.69	3.50	G-T	Hl	Hl	Hl
Warner Gear.....T84-C	Cars	3	3	2.43	1.42	1.00	.....	.....	3.24	.....	Csy	Ball	Rol	BB	.....	2.50	G-T	Hl	Hl	Sp
Warner Gear.....T9-A	Trucks	4	4	6.40	3.09	1.69	1.00	.....	7.82	.....	Cl	Ball	Rol	Rol	7.31	4.28	G-T	Sp	Sp	Sp

(a)—Main shaft 2320, Counter shaft 2512
Al—Aluminum
(b)—Helical gears 4620, Spur 2320, Reverse 2512
B—Buses
BB—Bronze Bushing
B&G—Ball and Reverse Roller Shaft or Gear
B&R—Ball and Roller
(c)—Low 4.68, High 8.10
C&C—Constant Mesh and Clash
Ce—Center
CF—Center or Forward
CFR—Center, Forward and Remote
Ch—Constant Mesh Helical
Cl—Cast Iron
Cl—Clash
CMS—Chrome Manganese Steel
Con—Constant Mesh
CR—Center and Remote
Cs—Constant Mesh Spur
CS—Center or Side
Csy—Constant Mesh Synchronizing Clutches
(d)—Helical 4620, Spur and Reverse 2320
Dir—Direct
(e)—Low 7.18, High 4.16
(f)—Low 8.00, High 4.71
FR—Forward or Remote

TRANSMISSIONS

TEETH USED FOR				GEAR TOOTH PITCH							MATERIALS					BRAKE				
Fourth	Fifth	Reverse	Countershaft Drive	Low	Second	Third	Fourth	Fifth	Reverse	Countershaft Drive	Housing	Shaft—S. A. E. No.	Gear—S. A. E. No.	Control Location	Sold with Clutch	Diameter (Ins.)	Width (Ins.)	Weight (Lbs.)	Recommended Type of Lubrication	MAKE AND MODEL
			Sp		6					6	Cl	3115	4620	Si				95	Oil	Brown-Lipe.....221
			Sp	6	6					6	Cl	3115	4620	Si				95	Oil	Brown-Lipe.....222
				6	6					6	Cl	3115	4620	Re	No	9½		105	Oil	Brown-Lipe.....231
				6	6					6	Cl	3115	4620	Re	No	9½		105	Oil	Brown-Lipe.....232
		Sp	Hl	6–8	7				6–8	7	Cl	4615	4620	Ce	Op				Oil	Brown-Lipe.....1431
Hl	Hl	Sp	Hl	6–8	6–8	7	7		6–8	7	Cl	4615	4620	Ce	Op				Oil	Brown-Lipe.....2252
Hl	Hl	Sp	Hl	6–8	6–8	7		7	6–8	7	Cl	4615	4620	Ce	Op				Oil	Brown-Lipe.....2253
Dir				7–9	7–9	7			7–9	7	Cl	3115	4620	Ce	Op			127	Oil	Brown-Lipe.....2341
Hl	Dir	Sp	Hl	6–8	6–8	7	7		6–8	7	Cl	4615	4620	Ce	Op	8	2½		Oil	Brown-Lipe.....2352
Hl	Hl	Sp	Hl	6–8	6–8	7		7	6–8	7	Cl	4615	4620	Ce	Op				Oil	Brown-Lipe.....2353
			Hl	6						6	Cl	4615	4620	Ce				135	Oil	Brown-Lipe.....3221
			Hl	6						6	Cl	4615	4620	Ce				135	Oil	Brown-Lipe.....3222
Hl		Sp	Hl	6–8	6–8	7	7		6–8	7	Cl	4615	4620	Ce				225	Oil	Brown-Lipe.....3241
Hl		Sp	Hl	6–8	6–8	7	7		6–8	7	Cl	4615	4620	Ce	Op			225	Oil	Brown-Lipe.....3341
Hl	Hl	Sp	Hl	6–8	6–8	7	7		6–8	7	Cl	4615	4620	Ce	Op				Oil	Brown-Lipe.....3352
Hl	Hl	Sp	Hl	6–8	6–8	7		7	6–8	7	Cl	4615	4620	Ce	Op				Oil	Brown-Lipe.....3353
Hl		Sp	Hl	6–8	6–8	6–8	7		6–8	7	Cl	4615	4620	Ce	Op	8	2½	225	Oil	Brown-Lipe.....3440
Hl	Hl	Sp	Hl								Cl	4615	4620	Ce	Op			60	Oil	Brown-Lipe.....3481
		Sp	Hl	6–8	7				6–8	7	Al	4615	4620	Si	Op				Oil	Brown-Lipe.....5031
				6						6	Cl	4615	4620	Ce				190	Oil	Brown-Lipe.....5221
											Cl	4615	4620	Ce				190	Oil	Brown-Lipe.....5222
Hl		Sp	Hl	6–8	6–8	6			6–8	6	Cl	4615	4620	Ce	Op			320	Oil	Brown-Lipe.....5241
Hl	Hl	Sp	Hl	6–8	6–8	6		6	6–8	6	Cl	4615	4620	Ce	Op			410	Oil	Brown-Lipe.....5251
		Sp	Hl	6	6				6–8	6	Cl	4615	4620	Si	Op				Oil	Brown-Lipe.....5331
Hl		Sp	Hl	6–8	6–8	6			6–8	6	Cl	4615	4620	Ce	Op			320	Oil	Brown-Lipe.....5341
Hl	Hl	Sp	Hl	6–8	6–8	6		6	6–8	6	Cl	4615	4620	Ce	Op			410	Oil	Brown-Lipe.....5351
Hl	Dir	Sp	Hl	6–8	6–8	6–8	6		6–8	6	Cl	4615	4620	Ce	Op			410	Oil	Brown-Lipe.....5352
Hl		Sp	Hl	6–8	6–8		6		6–8	6	Cl	4615	4620	Ce	Op			320	Oil	Brown-Lipe.....5440
			Hl	5						6	Cl	4615	4620	Ce	No			200	Oil	Brown-Lipe.....6031
		Sp	Hl	6–8	6	6			6–8	6	Al	4615	4620	CS	Op				Oil	Brown-Lipe.....7131
Dir		Sp	Hl	5–7	5–7	6			5–7	6	Cl	4615	4620	Ce	Op			480	Oil	Brown-Lipe.....7241
Dir		Sp	Hl	5–7	5–7	6			5–7	6	Cl	4615	4620	Ce	Op			480	Oil	Brown-Lipe.....7341
Dir	Hl	Sp	Hl	5–7	5–7	6		6	5–7	6	Cl	4615	4620	Ce	Op			580	Oil	Brown-Lipe.....7351
Hl		Sp	Hl	5–7	5–7		6		5–7	6	Cl	4615	4620	Ce	Op			480	Oil	Brown-Lipe.....7440
Dir		Sp	Sp	Var	Var	Var	Var	Var	Var	Var	Cl	4620	Var	CR	No	Yes		Var	Oil	Clark.....170FS
Dir		Sp	Sp								Cl	4620	VMAS	Ce	No			Var	Oil	Clark.....B-300
Dir		Sp	Sp								Cl	4620	VMAS	Ce	No			Var	Oil	Clark.....301
Dir		Sp	Hl								Cl	4620	4620°	Ce	No			Var	Oil	Clark.....185-F
Hl	Dir	Sp	Hl								Cl	Spec	Spec	Ce	No			Var	Oil	Clark.....200-V
Dir	Hl	Sp	Hl								Cl	Spec	Spec	Ce	No			Var	Oil	Clark.....200-VO
Hl	Dir	Sp	Hl	Var	Var	Var	Var	Var	Var	Var	Cl	4620	Var	CFR	No	No		Var	Oil	Clark.....201-V
Hl	Dir	Sp	Hl	Var	Var	Var	Var	Var	Var	Var	Cl	4620	Var	CFR	No	Yes		Var	Oil	Clark.....202-V
Dir	Hl	Sp	Hl	Var	Var	Var	Var	Var	Var	Var	Cl	4620	Var	CFR	No	Yes		Var	Oil	Clark.....202-VO
Dir		Sp	Hl	Var	Var	Var	Var	Var	Var	Var	Cl	4620	Var	FR	No	Yes		Var	Oil	Clark.....230-F
Dir		Sp	Hl	Var	Var	Var	Var	Var	Var	Var	Cl	4620	Var	FR	No	Yes		Var	Oil	Clark.....231-F
Hl	Dir	Sp	Hl								Cl	4620	4620°	FR	No			Var	Oil	Clark.....270-V
Dir	Hl	Sp	Hl								Cl	Spec	Var	FR	No			Var	Oil	Clark.....270-VO
Hl	Dir	Sp	Hl								Cl	4620	4620°	Ce	No			Var	Oil	Clark.....325-V
Dir	Hl	Sp	Hl								Cl	4620	4620°	Ce	No			Var	Oil	Clark.....325-VO
Dir	Hl	Sp	Hl	Var	Var	Var	Var	Var	Var	Var	Cl	4620	Var	Ce	No	No		Var	Oil	Clark.....425-VO
Sp		Sp									SS	3120°	3120	Ce	Op			165	NoF	Cotta.....A
		Sp									SS	3120°	3120		Op			575	NoF°	Cotta.....FA
		Sp									SS	3120°	3120		Op			250	NoF	Cotta.....FAA
		Sp									SS	3120	3120	Si	Op			150	NoF	Cotta.....JR
		Sp									SS	3120°	3120	Ce	Op			250	NoF	Cotta.....RAU
		Sp									SS	3120°	3120	Ce	Op			325	NoF	Cotta.....SAU
		Sp									SS	3120°	3120	Ce	Op			400	NoF	Cotta.....TAU
Sp		Sp									SS	3120°	3120		Op			410	NoF	Cotta.....T
		Sp									SS	3120°	3120		Op			210	NoF	Cotta.....TS
		Sp									SS	3120°	3120		Op			325	NoF	Cotta.....ZA
S or H	Dir	S or H	S or H								Cl	2340	2320	Ce	No				Oil	Cotta Gear.....45U-5
Dir		Sp	He								SS	2340	2320	Ce	No				Oil	Cotta Gear.....6U-4H
He	Dir	He	He								SS	2340	2320	Ce	No				Oil	Cotta Gear.....8U-5H
He	Dir	He	He								SS	2340	2320	Ce	No				Oil	Cotta Gear.....65
He	Dir	He	He								SS	2340	2320	Ce	No				Oil	Cotta Gear.....55
		Sp	Hl								Cl	5140	5140	Ce	No			91	Oil	Detroit.....SM-400-AA
		Sp	Hl								Cl	5140	5140	Ce	No			91	Oil	Detroit.....SM-400-BB
		Sp	Hl								Cl	5140	4615	Ce	No			93	Oil	Detroit.....SM-400-FF
		Sp	Hl								Cl	5140	4615	Ce	No			93	Oil	Detroit.....SM-400-ZA
Hl		Sp	Hl	6–7	6–7	7–9	7–9	7–9	6–7	7–9	Cl	(a)	(b)	Ce	Op	10.00	3.00	210	Oil	Fuller.....5A-33, 5B-33
Hl		Sp	Hl	6–7	6–7	7–9	7–9	7–9	6–7	7–9	Cl	(a)	(b)	Ce	Op	10.00	3.00	210	Oil	Fuller.....5A-330, 5B-330
		No	Sp	6–6.9	6					6	Cl	2320	2320	Si		No		158	Oil	Fuller.....2A-53
		No	Sp	6–6.9	6					6	Cl	2320	2320	Si		No		158	Oil	Fuller.....2A-53
Hl	Hl	Sp	Hl	5–7	5–7	7–9	7–9	7–9	5–7	7–9	Cl	2320	(d)	Ce	Op	No		287	Oil	Fuller.....5A-38
Hl	Hl	Sp	Hl	5–7	5–7	7–9	7–9	7–9	5–7	7–9	Cl	2320	(d)	Ce	Op	No		287	Oil	Fuller.....5A-380
Hl	Hl	Sp	Hl	6–7	6–7	6–6.93	6–6.93	6–6.93	6–7	6–6.93	Cl	(a)	(d)	Ce	Op	10.00	3.00	305	Oil	Fuller.....5A-43
Hl	Hl	Sp	Hl	6–7	6–7	6–6.93	6–6.93	6–6.93	6–7	6–6.93	Cl	(a)	(d)	Ce	Op	10.00	3.00	305	Oil	Fuller.....5A-430
		No	Sp	4½	4½	5			No	5	Cl	2320	2320	SU	No	No		340	Oil	Fuller.....3AY
		No	Sp	4½–6	6–8				No	6–8	Cl	2320	2320	Ce	Op	No		135	Oil	Fuller.....2SC-2.75
Hl	Hl	Sp	Hl	5–6	5–6	6–6.54	6–6.54	6–6.54	5–6	6–6.54	Cl	2320	(d)	Ce	Op	No		370	Oil	Fuller.....5A-620
Hl	Hl	Sp	Hl	5–6	5–6	6–6.54	6–6.54	6–6.54	5–6	6–6.54	Cl	2320	(d)	Ce	Op	No		370	Oil	Fuller.....5A-62
Sp		Sp	Sp	4½–6	4½–6	4½–6	6–8		4½–6	6–8	Cl	2320	2512	Ce	Op	No		315	Oil	Fuller.....MHU
Sp		Sp	Sp	6–8	5–7	5–7	6–8		6–8	6–8	Cl	2320	2320	Ce	Op	No		200	Oil	Fuller.....MLU
Sp		Sp	Sp	5–7	5–7	5–7	6–8		5–7	6–8	Cl	2320	2512	Ce	Op	No		285	Oil	Fuller.....MRU
Sp		Sp	Sp	6–8	5–7	5–7	6–8		5–7	6–8	Cl	2320	2320	Ce	Op	No		227	Oil	Fuller.....MGU
Sp		Sp	Sp	6–8	6–8	6–8	6–8		6–8	6–8	Cl	2320	2320	Ce	Op	No		98	Oil	Fuller.....WO-BB
			Cs	7	7					7	Cl	6145	6145	Re	No	No			Oil	Mann-MacKenzie.....B
Ch		He	He	7	7	7	7		7	7	Cl	2315	2315	CR	No	No			Oil	Mann-MacKenzie.....200
Cs		Sp	Sp	5	5	5	5		5	5	Cl	2315	2315	CR	No	No		380	Oil	Mann-MacKenzie.U-300
Cs		Sp	Sp	5	5	5	5		5	5	Cl	2315	2315	FR	No	No		265	Oil	Mann-MacKenzie.M300
Ch		He	He	6	6	6	6		6	6	Al	2315	2315	CR	No	No		286	Oil	Mann-MacKenzie.....600
Ch		He	He	6	6	6	6		6	6	Al	2315	2315	CR	No	No		285	Oil	Mann-M'Kenzie.600Ov.
Sp		Sp		7	7	7	7–9		7–9		Cl	CMS	CMS	Ce	Op	8	2½	131	Oil	Warner Gear.....T9
		Hl		9.34	9.43	10.59			9.34		Cl	3120	NM	CF	Op	7	2	84	Oil	Warner Gear.....T86
		Hl		9.25	9.25	9.25			9.25		Cl	3120	CMS	CF	Op	7	2	145¾	Oil	Warner Gear.....T85
		Sp		9.25	9.25	8			8		Cl	CMS	CMS	Ce	Op	2	6	88	Oil	Warner Gear.....T83
		Hl		8–7	9.25	9.25			8–7		Cl	4615	4640	Ce	Op			167	Oil	Warner Gear.....T82-A
		Sp		8.2	11	11					Cl	CMS	NM	Ce	No	No		45¾	Oil	Warner Gear.....T84-C
Sp		Sp		7	7	7	7–9				Cl	CMS	NM	Ce	Op	8	2½	98½	Oil	Warner Gear.....T9-A

(g)—Low 6.50, High 3.33
G-T—Gear Teeth
(h)—Low 7.11, High 3.55
He—Herringbone
Hl—Helical
(k)—Low 8.12, High 4.74

No—No or None
NoF—Non-Fluid
NM—Nickel Molybdenum
Op—Optional
Pla—Plain

Re—Remote
Rol—Roller
Si—Side
S or H—Spur or Herringbone
Sp—Spur

Spec—Special
SS—Semi-Steel
SU—Separate Unit
Syn—Synchronising Clutch
T—Trucks
Tr—Tractors

Var—Various
°—Others also
*Sixth—1.57, Seventh—1.00, Eighth—73
†Underdrive

AMERICAN AIRPLANE ENGINES

MAKE AND MODEL	Department of Commerce License or A.T.C. No.	CYLINDER DATA: Arrangement	Cooling Medium	Number of Cylinders Bore and Stroke (Ins.)	Total Piston Displacement (Cu. Ins.)	Compression Ratio	B.M.E.P. at Cruising HP (Lbs. per Sq. In.)	Blower Ratio	Cylinder Material	No. of Valves per Cylinder: Intake	Exhaust	Valve Arrangement	RATINGS: Maximum (Except Take-off) Horsepower	R.P.M.	At Sea Level or Altitude (Ft.)	Take-off Horsepower	R.P.M.	Cruising Horsepower	R.P.M.	Octane Rating of Fuel Required	Propellor Drive	Weight (Lbs.): Engine Dry—Without Hub or Starter	Per Cruising H.P.	Carburetors: Number and Make Fitted	Ignition System: Make	Current Source	Number	Starting: Make	Method	Installation Dimensions (Ins.): Overall Length	Height	Width	Height Above Engine Bed (Ins.)	Center to Center Engine Bearers (Ins.)	Price Complete at Factory
Aeronca[1] E-113C	71	Hor	Air	2—4¼x4	113.5	5.40	.....	No	8	1	1	I	36	2400	SL	36	2400	.....	.....	73	D	121	3.36	1-Str	Bos	Mag	1	.....	PS	24.12	22.3	34.5	Triangular		$675
Continental A-40-4	72	Hor	Air	4—3⅛x3¾	115.0	5.14	90	No	4	1	1	L	42	2700	SL	40	2575	30	2300	65	D	145	4.83	1-Str	BS	Mag	1	.....	PS	14¼	21⅝	25½	.....	8¼	P.O.A.
Continental W-670-K	162	Rad	Air	7—5⅛x4⅝	670.0	5.40	104	No	8	1	1	I	230	2290	SL	225	2175	175	2000	65	D	450	2.57	1-Str	BS	Mag	2	Opt	EM	16¾	42½	25½	.....	20	P.O.A.
Continental W-670-M-1	168	Rad	Air	7—5⅛x4⅝	670.0	6.10	112	No	8	1	1	I	260	2300	SL	250	2200	190	2000	80	D	450	2.37	1-Mar	Scin	Mag	2	Opt	EM	16¾	42½	25½	.....	20	P.O.A.
Gulberson-Diesel A-980	79	Rad	Air	9—4¹⁵⁄₁₆x6	982.0	14.70	74	.....	8	1	1	I	210	2000	.....	200	2000	160	1750	....	D	509	3.18	.....	.....	.....	.....	Ecl	EM	34	46	.....	.....	.....	.....
Gulberson-Diesel A-918	.....	Rad	Air	9—4¾x5¾	918.0	16.00	91	.....	8	1	1	I	273	2050	.....	252	2050	200	1900	....	D	549	2.75	.....	.....	.....	.....	EC	EM	35	49	.....	.....	.....	.....
Jacobs L-4	121	Rad	Air	7—5¼x5	757.0	5.37	96	.....	b	7	7	I	225	2000	SL	.....	.....	175	1900	73	D	440	2.52	1-Str	BS	Bat	2	Ecl	EM	.....	43½	.....	.....	.....	.....
Jacobs L-4M	121	Rad	Air	7—5¼x5	757.0	5.37	96	.....	b	7	7	I	225	2000	SL	.....	.....	175	1900	73	D	445	2.54	1-Str	Scin	Mag	2	Ecl	EM	.....	43½	.....	.....	.....	.....
Jacobs L-5	156	Rad	Air	7—5½x5	831.0	6.00	105	.....	b	7	7	I	285	2000	SL	.....	.....	210	1900	73	D	475	2.26	1-Str	BS	Bat	2	Ecl	EM	.....	43½	.....	.....	.....	.....
Jacobs L-5M	156	Rad	Air	7—5½x5	831.0	6.00	105	.....	b	7	7	I	285	2000	SL	.....	.....	210	1900	73	D	480	2.28	1-Str	Scin	Mag	2	Ecl	EM	.....	43½	.....	.....	.....	.....
Kinner K-5	3	Rad	Air	5—4¼x5¼	372.0	5.25	97	No	8	1	1	L	100	1810	SL	100	1810	75	1650	73	D	275	3.67	1-SH	BS	Mag	2	Ecl	CA	15¾	45¼	.....	.....	14	.....
Kinner B-5	51	Rad	Air	5—4⅝x5¼	441.0	5.25	98	No	8	1	1	I	125	1925	SL	125	1925	94	1725	73	D	295	3.14	1-SH	Scin	Mag	2	Ecl	CA	15¾	45⅝	.....	.....	14	.....
Kinner R-5	77	Rad	Air	5—4⅞x5¼	490.0	5.00	109	No	8	1	1	I	160	1975	SL	160	1975	120	1775	73	D	314	2.62	1-Str	Scin	Mag	2	Ecl	CA	15¾	45⅝	.....	.....	14	.....
Kinner R5-2	153	Rad	Air	5—5x5½	540.0	5.50	107	No	8	1	1	I	160	1850	SL	160	1850	120	1650	73	D	330	2.75	1-Str	Scin	Mag	2	Ecl	CA	15¾	45¹¹⁄₁₆	.....	.....	14	.....
Kinner C-5	62	Rad	Air	5—5⅝x5¾	715.0	5.25	104	No	8	1	1	I	210	1900	SL	210	1900	160	1700	73	D	420	2.62	1-Str	Scin	Mag	2	Ecl	CE	20⅝	50	.....	.....	19¼	.....
Kinner C-7	122	Rad	Air	7—5⅝x6	1044.0	5.25	107	1.00	8	1	1	I	300	1800	SL	300	1800	225	1600	73	D	600	2.67	1-Str	Scin	Mag	2	Ecl	EM	20½	48¼	.....	.....	20	.....
Kinner SC-7	.....	Rad	Air	7—5⅝x6	1044.0	5.50	125	9.75	8	1	1	I	370	1900	5000	385	2000	280	1700	73	D	630	2.25	1-Str	Scin	Mag	2	Ecl	EM	20½	47¾	.....	.....	20	.....
Le Blond-70 5E	48	Rad	Air	5—4⅛x3¾	250.5	5.40	114	.....	5	1	1	I	70	1950	.....	.....	.....	.....	.....	65	D	242	3.46	1-Hol	Scin	Mag	2	Ben	EM	23¾†	33¼	.....	.....	.....	.....
Le Blond-85 5F	46	Rad	Air	5—4¼x3¾	266.0	5.40	119	.....	8	1	1	I	85	2125	.....	.....	.....	.....	.....	65	D	220	2.59	1-Str	Scin	Mag	2	Ben	EM	23¾†	33¼	.....	.....	.....	.....
Le Blond-90 5F	46	Rad	Air	5—4¼x3¾	266.0	6.00	119	.....	8	1	1	I	90	2250	.....	.....	.....	.....	.....	65	D	220	2.45	1-Str	Scin	Mag	2	Ben	EM	23¾†	33¼	.....	.....	.....	.....
Le Blond-110 7F	52	Rad	Air	7—4¼x3¾	372.0	5.40	109	.....	8	1	1	I	110	2150	.....	.....	.....	.....	.....	65	D	275	2.50	1-Str	Scin	Mag	2	Ben	EM	24⅛†	33¼	.....	.....	.....	.....
Lycoming R-680-B2	81	Rad	Air	9—4⅝x4½	680.4	6.50	140	1.00	8	1	1	I	240	2000	.....	.....	.....	.....	.....	80	D	495	2.06	1-Str	Scin	Mag	1	Opt	Opt	33¹¹⁄₁₆	43¼	.....	.....	19¼	.....
Lycoming R-680-B4	108	Rad	Air	9—4⅝x4½	680.4	5.50	125	1.00	8	1	1	I	225	2100	.....	.....	.....	.....	.....	73	D	493	2.19	1-Str	Scin	Mag	1	Opt	Opt	33¹¹⁄₁₆	43¼	.....	.....	19¼	.....
Lycoming R-680-B5	110	Rad	Air	9—4⅝x4½	680.4	6.50	131	1.00	8	1	1	I	260	2300	.....	.....	.....	.....	.....	80	D	495	1.90	1-Str	Scin	Mag	1	Opt	Opt	33¹¹⁄₁₆	43¼	.....	.....	19¼	.....
Lycoming R-680-B6	111	Rad	Air	9—4⅝x4½	680.4	5.50	124	1.00	8	1	1	I	245	2300	.....	.....	.....	.....	.....	73	D	493	2.01	1-Str	Scin	Mag	1	Opt	Opt	33¹¹⁄₁₆	43¼	.....	.....	19¼	.....
Menasco-Pirate B4	65	IV-L	Air	4—4⅛x5⅛	326.0	5.50	94	No	4	1	1	I	95	2000	SL	.....	.....	70	1800	75	D	290	4.15	1-Str	Scin	.....	2	.....	HE	47½	28⅝	13¾	5¼	16⅝	P.O.A.
Menasco-Pirate C4	67	IV-L	Air	4—4¾x5⅛	363.0	5.50	102	No	4	1	1	I	125	2175	SL	.....	.....	90	1925	75	D	288	3.20	1-Str	Scin	.....	2	.....	HE	47½	28⅝	13¾	5¼	16⅝	P.O.A.
Menasco-Pirate C4S	134	IV-L	Air	4—4¾x5⅛	363.0	5.50	117	9.60	4	1	1	I	150	2260	3000	160	2260	110	2050	80	D	305	2.77	1-Str	Bos	.....	2	.....	HE	47½	28⅝	13¾	5¼	16⅝	P.O.A.
Menasco-Buccaneer B6	68	IV-L	Air	6—4⅛x5⅛	489.0	5.50	108	No	4	1	1	I	160	1975	SL	.....	.....	120	1800	75	D	385	3.21	1-Str	Bos	.....	2	.....	HE	60⅛	28⅝	15⅛	6⅜	12⅞	P.O.A.
Menasco-Buccaneer B6S	139	IV-L	Air	6—4½x5⅛	489.0	5.50	122	8.75	4	1	1	I	200	2250	4500	218	2250	150	2000	80	D	423	2.82	1-Str	Bos	.....	2	.....	HE	60⅛	28⅝	15⅛	6⅜	12¼	P.O.A.
Menasco-Super-Buc C6S-4	.....	IV-L	Air	6—4¾x5⅛	544.0	5.50	139	10.90	8	1	1	I	250	2300	6000	290	2400	200	2100	80	D	535	2.67	1-Str	Scin	.....	2	.....	HE	66½	30¾	16½	8⅞	12⅞	P.O.A.
Pratt & Whitney Wasp Jr.-TB	85	Rad	Air	9—5⅜x5⅜	985.0	6.00	121	8.00	8	1	1	I	420	2200	SL	440	2300	300	2000	80	D	596	1.97	1-Str	Scin	Mag	1	EH	Opt	42⅝	45¾	.....	.....	23⅛	5720
Pratt & Whitney Wasp Jr.-SB	123	Rad	Air	9—5⅜x5⅜	985.0	6.00	121	10.00	8	1	1	I	400	2200	5000	450	2300	300	2000	87	D	596	1.97	1-Str	Scin	Mag	1	EH	Opt	42⅝	45¾	.....	.....	23⅛	5720
Pratt & Whitney Wasp S1H1G	129	Rad	Air	9—5¾x5¾	1344.0	6.00	118	12.00	8	1	1	I	550	2200	8000	600	2250	400	2000	87	G	883	2.21	1-Str	Scin	Mag	1	Ecl	Opt	48⅞	51⅝	.....	.....	23⅛	7520
Pratt & Whitney Wasp S2H1	163	Rad	Air	9—5¾x5¾	1344.0	6.00	111	12.00	8	1	1	I	500	2200	10500	500	2200	375	2000	80	DG	798°	2.13°	1-Str	Scin	Mag	1	Ecl	Opt	44⅝₆₄°	51⅝	.....	.....	23⅛	7520°
Pratt & Whitney Wasp S3H1	143	Rad	Air	9—5¾x5¾	1344.0	6.00	118	10.00	8	1	1	I	550	2200	5000	550	2200	400	2000	80	DG	798°	1.99°	1-Str	Scin	Mag	1	Ecl	Opt	44⅝₆₄°	51⅝	.....	.....	23⅛	7520°
Pratt & Whitney Wasp S4H1	.....	Rad	Air	9—5¾x5¾	1344.0	6.00	105	10.00	8	1	1	I	450	2100	6000	450	2100	340	1900	80	DG	798°	2.35°	1-Str	Scin	Mag	1	Ecl	Opt	44⅝₆₄°	51⅝	.....	.....	23⅛	7520°
Pratt & Whitney Wasp T1H1	.....	Rad	Air	9—5¾x5¾	1344.0	6.00	121	10.00	8	1	1	I	525	2100	SL	525	2100	390	1900	80	DG	798°	2.21°	1-Str	Scin	Mag	1	Ecl	Opt	44⅝₆₄°	51⅝	.....	.....	23⅛	7520°
Pratt & Whitney Wasp T3H1	.....	Rad	Air	9—5¾x5¾	1344.0	6.00	102	10.00	8	1	1	I	420	2000	SL	420	2000	315	1825	73	DG	798°	2.53°	1-Str	Scin	Mag	1	Ecl	HE	44⅝₆₄°	51⅝	.....	.....	23⅛	7520°
Pratt & Whitney Hornet S1EG	136	Rad	Air	9—6⅛x6⅝	1690.0	6.50	123	12.00	8	1	1	I	750	2250	7000	800	2300	525	2000	87	G	1015	1.93	1-Str	Scin	Mag	1	Ecl	HE	51	54⅛	.....	.....	23⅛	8980
Pratt & Whitney Hornet S2EG	144	Rad	Air	9—6⅛x6⅝	1690.0	6.00	123	10.00	8	1	1	I	750	2250	2500	800	2300	525	2000	87	G	1015	1.93	1-Str	Scin	Mag	1	Ecl	HE	51	54⅛	.....	.....	23⅛	8980
Pratt & Whitney Hornet S3EG	.....	Rad	Air	9—6⅛x6⅝	1690.0	6.00	110	10.00	8	1	1	I	675	2250	6000	675	2250	470	2000	80	G	1015	2.16	1-Str	Scin	Mag	1	Ecl	HE	51	54⅛	.....	.....	23⅛	8980
Pratt & Whitney Hornet S5E	.....	Rad	Air	9—6⅛x6⅝	1690.0	6.50	126	12.00	8	1	1	I	700	2050	6000	700	2050	490	1825	87	D	920	1.87	1-Str	Scin	Mag	1	Ecl	HE	45⅝	54⅛	.....	.....	23⅛	7900
Pratt & Whitney Hornet S9E	152	Rad	Air	9—6⅛x6⅝	1690.0	6.00	117	10.00	8	1	1	I	650	2050	3000	650	2050	455	1825	80	D	920	2.02	1-Str	Scin	Mag	1	Ecl	HE	45⅝	54⅛	.....	.....	23⅛	7900
Pratt & Whitney Hornet S10E	.....	Rad	Air	9—6⅛x6⅝	1690.0	6.00	106	10.00	8	1	1	I	575	2000	2000	575	2000	400	1775	80	D	920	2.30	1-Str	Scin	Mag	1	Ecl	HE	45⅝	54⅛	.....	.....	23⅛	7900
Pratt & Whitney Hornet S11E	.....	Rad	Air	9—6⅛x6⅝	1690.0	6.00	98	10.00	8	1	1	I	525	2000	4000	525	2000	370	1780	73	D	920	2.48	1-Str	Scin	Mag	1	Ecl	HE	45⅝	54⅛	.....	.....	23⅛	7900
Pratt & Whitney Twin Wasp Jr. S2A4-G	165	Rad	Air	14—5⅜x5⅜	1535.0	6.70	114	10.00	8	1	1	I	700	2500	8500	700	2500	485	2200	87	G	1070	2.21	1-Str	Scin	Mag	1	Ecl	HE	53¼	44⅛	.....	.....	23⅛	P.O.A.
Pratt & Whitney Twin Wasp B3-G	158	Rad	Air	14—5½x5½	1830.0	6.50	126	12.00	8	1	1	I	950	2550	5000	1000	2600	625	2150	87	G	1265	2.02	1-Str	Scin	Mag	1	Ecl	HE	55³¹⁄₆₄	48⅛	.....	.....	23⅛	P.O.A.
Ranger 6-390-D	146	IV-L	Air	6—4x5¼	386.4	6.00	110	No	8	1	1	OH	150	2350	SL	.....	.....	115	2150	73	D	360	3.13	1-Str	Scin	Mag	2	Opt	Opt	50½	31¹⁷⁄₃₂	20¼	.....	.....	P.O.A.
Ranger V-770B-1	.....	IV-L	Air	12—4x5⅛	772.8	6.00	112	No	8	1	1	OH	290	2300	SL	.....	.....	215	2100	73	D	555	2.58	2-Str	Scin	Mag	Do	Opt	Opt	59²⁵⁄₃₂	27⅜	30¼	.....	15½	P.O.A.
Ranger SGV-770A-1	184	IV-L	Air	12—4x5⅛	772.8	6.00	123	7.71	8	1	1	OH	420	2800	SL	.....	.....	300	2500	87	G	620	2.07	1-Str	Scin	Mag	Do	Opt	Opt	59²⁵⁄₃₂	31⅝	28	.....	16½	P.O.A.
Rover L-267	37	IV-L	Air	4—4⅛x5	267.0	5.10	117	No	3	1	1	I	75	1975	SL	.....	.....	.....	.....	78	D	225	3.00	1-Str	Scin	Mag	2	Ecl	EM	42¼	29⅛	16	.....	14	750

Security	S-1-125	....	Rad	Air	5—4¾x5	440.5	5.10	118	No	...	1	1	I	125	1900	....	....	....	....	....	80	D	298	2.38	1-Hol	....	Bat	1	Own	D	32	42⅝	41	....	8 1/16	1200
Tank[2]	V-502	73	V90	Air	8—3⅞x5	470.0	5.45	117	....	4	1	1	I	115	1650	....	....	....	....	....	73	D	397	3.45	1-Zen	Scin	Mag	1	....	PS	52	32	29	17¾	12⅞	570
Warner	Scarab Jr.	54	Rad	Air	5—4¼x4¼	301.0	5.20	117	No	8	1	1	I	90	2025	SL	....	....	....	....	73	D	230	2.56	1-Str	Scin	Mag	2	Ecl	EM(b)	29¼	36½	36½	....	17	P.O.A.
Warner	Scarab	2	Rad	Air	7—4¼x4¼	422.0	5.20	116	No	8	1	1	I	125	2025	SL	....	....	....	....	73	D	280	2.24	1-Str	Scin	Mag	2	Ecl	EM(b)	29¼	36½	36½	....	17	P.O.A.
Warner	Super Scarab	104	Rad	Air	7—4⅝x4¼	499.0	5.30	114	No	8	1	1	I	145	2025	SL	....	....	....	....	73	D	303	2.09	1-Str	Scin	Mag	2	Ecl	EM(b)	29¼	36½	36½	....	17	P.O.A.
Wright	Cyclone R-1820-G1	....	Rad	Air	9—6⅛x6⅞	1823.0	6.45	137	5.95	8	1	1	I	850	2100	3000	940	2200	600	1900	87	D	1068	1.78	1-Str	Scin	Mag	2	Opt	Opt	43¼	54¼	54¼	28 5/16	23⅜	P.O.A.
Wright	Cyclone GR-1820-G1	....	Rad	Air	9—6⅛x6⅞	1823.0	6.45	137	5.95	8	1	1	I	850	2100	3000	940	2200	600	1900	87	G	1163	1.94	1-Str	Scin	Mag	2	Opt	Opt	47¾	54¼	54¼	32 27/32	23⅜	P.O.A.
Wright	Cyclone R-1820-G2	157	Rad	Air	9—6⅛x6⅞	1823.0	6.45	137	7.00	8	1	1	I	850	2100	5500	1000	2200	600	1900	87	D	1068	1.78	1-Str	Scin	Mag	2	Opt	Opt	43¼	54¼	54¼	28 5/16	23⅜	P.O.A.
Wright	Cyclone GR-1820-G2	157	Rad	Air	9—6⅛x6⅞	1823.0	6.45	137	7.00	8	1	1	I	850	2100	5500	1000	2200	600	1900	87	G	1163	1.94	1-Str	Scin	Mag	2	Opt	Opt	47¾	54¼	54¼	32 27/32	23⅜	P.O.A.
Wright	Cyclone R-1820-G3	....	Rad	Air	9—6⅛x6⅞	1823.0	6.45	137	8.31	8	1	1	I	840	2100	8700	875	2200	600	1900	87	D	1068	1.78	1-Str	Scin	Mag	2	Opt	Opt	43¼	54¼	54¼	28 5/16	23⅜	P.O.A.
Wright	Cyclone GR-1820-G3	....	Rad	Air	9—6⅛x6⅞	1823.0	6.45	137	8.31	8	1	1	I	840	2100	8700	875	2200	600	1900	87	G	1163	1.94	1-Str	Scin	Mag	2	Opt	Opt	47¾	54¼	54¼	32 27/32	23⅜	P.O.A.
Wright	Cyclone R-1820-G6	....	Rad	Air	9—6⅛x6⅞	1823.0	6.45	137	8.83	8	1	1	I	820	2100	10500	820	2200	600	1900	87	D	1068	1.78	1-Str	Scin	Mag	2	Opt	Opt	43¼	54¼	54¼	28 5/16	23⅜	P.O.A.
Wright	Cyclone GR-1820-G6	....	Rad	Air	9—6⅛x6⅞	1823.0	6.45	137	8.83	8	1	1	I	820	2100	10500	820	2200	600	1900	87	G	1163	1.94	1-Str	Scin	Mag	2	Opt	Opt	47¾	54¼	54¼	32 27/32	23⅜	P.O.A.
Wright	Cyclone R-1820-F52	148	Rad	Air	9—6⅛x6⅞	1823.0	6.40	126	7.00	8	1	1	I	775	2100	5800	890	2200	550	1900	87	D	975	1.77	1-Str	Scin	Mag	1	Opt	Opt	43⅜	54⅛	54⅛	28 5/16	23⅜	P.O.A.
Wright	Cyclone GR-1820-F52	148	Rad	Air	9—6⅛x6⅞	1823.0	6.40	126	7.00	8	1	1	I	760	2100	5800	875	2200	550	1900	87	G	1070	1.94	1-Str	Scin	Mag	1	Opt	Opt	47 13/16	54⅛	54⅛	32 27/32	23⅜	P.O.A.
Wright	Cyclone R-1820-F53	149	Rad	Air	9—6⅛x6⅞	1823.0	6.40	126	8.31	8	1	1	I	745	2100	9600	785	2200	550	1900	87	D	975	1.77	1-Str	Scin	Mag	1	Opt	Opt	43⅜	54⅛	54⅛	28 5/16	23⅜	P.O.A.
Wright	Cyclone GR-1820-F53	149	Rad	Air	9—6⅛x6⅞	1823.0	6.40	126	8.31	8	1	1	I	730	2100	9600	770	2200	550	1900	87	G	1070	1.94	1-Str	Scin	Mag	1	Opt	Opt	47 13/16	54⅛	54⅛	32 27/32	23⅜	P.O.A.
Wright	Cyclone R-1820-F54	150	Rad	Air	9—6⅛x6⅞	1823.0	6.40	126	10.00	8	1	1	I	690	2100	15300	655	2100	550	1900	87	D	975	1.77	1-Str	Scin	Mag	1	Opt	Opt	43⅜	54⅛	54⅛	28 5/16	23⅜	P.O.A.
Wright	Cyclone GR-1820-F54	150	Rad	Air	9—6⅛x6⅞	1823.0	6.40	126	10.00	8	1	1	I	675	2100	15300	640	2100	550	1900	87	G	1070	1.94	1-Str	Scin	Mag	1	Opt	Opt	47 13/16	54⅛	54⅛	32 27/32	23⅜	P.O.A.
Wright	Cyclone R-1820-F56	159	Rad	Air	9—6⅛x6⅞	1823.0	6.40	126	8.83	8	1	1	I	755	2100	11300	785	2200	550	1900	87	D	975	1.77	1-Str	Scin	Mag	1	Opt	Opt	43⅜	54⅛	54⅛	28 5/16	23⅜	P.O.A.
Wright	Cyclone GR-1820-F56	159	Rad	Air	9—6⅛x6⅞	1823.0	6.40	126	8.83	8	1	1	I	740	2100	11300	770	2200	550	1900	87	G	1070	1.94	1-Str	Scin	Mag	1	Opt	Opt	47 13/16	54⅛	54⅛	32 27/32	23⅜	P.O.A.
Wright	Whirlwind R-760E	28	Rad	Air	7—5x5½	756.0	5.10	111	7.05	8	1	1	I	250	2000	SL	....	....	195	1850	73	D	530	2.72	1-Str	Scin	Mag	2	Opt	Opt	42 23/32	45	45	31 5/64	19¼	P.O.A.
Wright	Whirlwind R-760E1	94	Rad	Air	7—5x5½	756.0	6.00	121	7.05	8	1	1	I	285	2100	SL	....	....	225	1950	73	D	545	2.42	1-Str	Scin	Mag	2	Opt	Opt	42 23/32	45	45	31 5/64	19¼	P.O.A.
Wright	Whirlwind R-760E2	155	Rad	Air	7—5x5½	756.0	6.30	121	9.17	8	1	1	I	320	2200	SL	350	2400	225	1950	80	D	560	2.49	1-Str	Scin	Mag	2	Opt	Opt	42 23/32	45	45	31 5/64	19¼	P.O.A.
Wright	Whirlwind R-760ET	126	Rad	Air	7—5x5½	756.0	6.00	111	No	8	1	1	I	235	2000	SL	....	....	195	1850	73	D	515	2.64	1-Str	Scin	Mag	2	Opt	Opt	42 23/32	45	45	31 5/64	19¼	P.O.A.
Wright	Whirlwind R-975E	21	Rad	Air	9—5x5½	973.0	5.10	114	7.80	8	1	1	I	330	2000	SL	....	....	260	1850	73	D	635	2.44	1-Str	Scin	Mag	2	Opt	Opt	43 15/32	45	45	31 5/64	19¼	P.O.A.
Wright	Whirlwind R-975E1	87	Rad	Air	9—5x5½	973.0	6.00	121	7.80	8	1	1	I	365	2100	SL	....	....	290	1950	73	D	645	2.22	1-Str	Scin	Mag	2	Opt	Opt	43 15/32	45	45	31 5/64	19¼	P.O.A.
Wright	Whirlwind R-975E3	125	Rad	Air	9—5x5½	973.0	6.30	132	10.15	8	1	1	I	420	2200	1400	450	2250	325	2000	80	D	660	2.03	1-Str	Scin	Mag	2	Opt	Opt	43 15/32	45	45	31 5/64	19¼	P.O.A.
Wright	Conqueror GV-1570F1	7	V60	Liq	12—5⅛x6¼	1587.0	6.50	116	No	2	2	2	I	655	2450	SL	....	....	500	2150	80	G	995	1.99	2-Str	Scin	Mag	1	Ecl	Opt	68 27/32	39¼	26 9/16	25⅛	15¾	P.O.A.
Wright	Conqueror GV-1570F2	131	V60	Liq	12—5⅛x6¼	1587.0	7.25	116	No	2	2	2	I	675	2450	SL	....	....	500	2150	87	G	1000	2.00	2-Str	Scin	Mag	1	Ecl	Opt	68 27/32	39¼	26 9/16	25⅛	15¾	P.O.A.
Wright	D. Row Whirlwind R-1510C	....	Rad	Air	14—5x5½	1512.0	7.00	124	5.95	8	1	1	I	670	2200	1700	705	2200	475	2000	87	D	970	2.04	2-Str	Scin	Mag	2	Opt	Opt	50¾	45	45	37½	22 5/16	P.O.A.
Wright	D. Row Whirlwind GR-1510C	....	Rad	Air	14—5x5½	1512.0	7.00	119	5.95	8	1	1	I	715	2400	1900	765	2400	500	2200	87	G	1025	2.05	2-Str	Scin	Mag	2	Opt	Opt	52⅜	45	45	35⅜	22 5/16	P.O.A.
Wright	D. Row Whirlwind R-1510C1	....	Rad	Air	14—5x5½	1512.0	7.00	124	6.30	8	1	1	I	650	2200	6300	680	2200	475	2000	87	D	970	2.04	2-Str	Scin	Mag	2	Opt	Opt	50¾	45	45	37½	22 5/16	P.O.A.
Wright	D. Row Whirlwind GR-1510C1	....	Rad	Air	14—5x5½	1512.0	7.00	119	6.30	8	1	1	I	700	2400	7000	730	2400	500	2200	87	G	1025	2.05	2-Str	Scin	Mag	2	Opt	Opt	52⅜	45	45	35⅜	22 5/16	P.O.A.
Wright	D. Row Whirlwind R-1510C2	....	Rad	Air	14—5x5½	1512.0	7.00	124	7.00	8	1	1	I	635	2200	8700	645	2200	475	2000	87	D	970	2.04	2-Str	Scin	Mag	2	Opt	Opt	50¾	45	45	37½	22 5/16	P.O.A.
Wright	D. Row Whirlwind GR-1510C2	....	Rad	Air	14—5x5½	1512.0	7.00	119	7.00	8	1	1	I	670	2400	10000	670	2400	500	2200	87	G	1025	2.05	2-Str	Scin	Mag	2	Opt	Opt	52⅜	45	45	35⅜	22 5/16	P.O.A.
Wright	D. Row Whirlwind R-1510C3	....	Rad	Air	14—5x5½	1512.0	7.00	124	8.31	8	1	1	I	575	2200	13700	555	2200	475	2000	87	D	970	2.04	2-Str	Scin	Mag	2	Opt	Opt	50¾	45	45	37½	22 5/16	P.O.A.
Wright	D. Row Whirlwind GR-1510C3	....	Rad	Air	14—5x5½	1512.0	7.00	119	8.31	8	1	1	I	600	2400	15400	570	2400	500	2200	87	G	1025	2.05	2-Str	Scin	Mag	2	Opt	Opt	52⅜	45	45	35⅜	22 5/16	P.O.A.
Wright	Cyclone R-1820F1	89	Rad	Air	9—6⅛x6⅞	1823.0	6.40	121	5.95	8	1	1	I	715	1950	SL	....	....	500	1800	87	D	947	1.90	1-Str	Scin	Mag	2	Opt	Opt	43⅜	53¾	53¾	28 5/16	23⅜	P.O.A.
Wright	Cyclone GR-1820F1	89	Rad	Air	9—6⅛x6⅞	1823.0	6.40	121	5.95	8	1	1	I	700	1950	SL	....	....	500	1800	87	G	1042	2.09	1-Str	Scin	Mag	2	Opt	Opt	47 13/16	53¾	53¾	32 27/32	23⅜	P.O.A.
Wright	Cyclone R-1820F2	98	Rad	Air	9—6⅛x6⅞	1823.0	6.40	121	7.00	8	1	1	I	768	1950	2600	768	1950	500	1800	87	D	955	1.91	1-Str	Scin	Mag	2	Opt	Opt	43⅜	53¾	53¾	28 5/16	23⅜	P.O.A.
Wright	Cyclone GR-1820F2	98	Rad	Air	9—6⅛x6⅞	1823.0	6.40	121	7.00	8	1	1	I	750	1950	2600	750	1950	500	1800	87	G	1050	2.10	1-Str	Scin	Mag	2	Opt	Opt	47 13/16	53¾	53¾	32 27/32	23⅜	P.O.A.
Wright	Cyclone R-1820F3	103	Rad	Air	9—6⅛x6⅞	1823.0	6.40	121	8.31	8	1	1	I	715	1950	7400	730	1950	500	1800	87	D	955	1.91	1-Str	Scin	Mag	2	Opt	Opt	43⅜	53¾	53¾	28 5/16	23⅜	P.O.A.
Wright	Cyclone GR-1820F3	103	Rad	Air	9—6⅛x6⅞	1823.0	6.40	121	8.31	8	1	1	I	697	1950	7400	712	1950	500	1800	87	G	1050	2.10	1-Str	Scin	Mag	2	Opt	Opt	47 13/16	53¾	53¾	32 27/32	23⅜	P.O.A.

ABBREVIATIONS—

General
- †—Less Starter
- °—Others Also
- a—Average
- (b)—At Extra Cost
- Do—One double (Ignition)
- Opt—Optional
- P.O.A.—Price on Application

Cooling
- Liq—Liquid

Cylinder Arrangement
- Hor—Horizontal
- I—In Line
- IV-L—Inverted-In Line
- Rad—Radial

Cylinder Material
- 1—Aluminum with Cast Iron Liner
- 2—Aluminum with Steel Liner
- 3—Cast Iron
- 4—Cast Iron with Aluminum Head
- 5—Molybdenum-Cast Iron
- 6—Nickel Iron
- 7—Nickel Iron and Aluminum with Cast Iron Liner
- 8—Steel with Aluminum Head
- 9—Steel
- 10—Chrome Nickel Steel with Aluminum Head
- 11—Steel Barrel with Integral Head (Wet Sleeve) Aluminum Jacket
- a—Nickel Iron or Steel Optional
- b—Chrome Molybdenum

Valve Location
- I—In Head with Push Rods and Rocker Arms
- L—Valves at Side
- OH—Overhead Camshaft

Rating
- SL—Sea Level

Propeller Drive
- D—Direct G—Geared

Carburetor Make
- Hol—Holley
- Mar—Marvel Fuel Injector
- SH—Stromberg or Holley
- Str—Stromberg
- Zen—Zenith

Ignition Systems Make
- Bos—Bosch
- BS—Bosch or Scintilla
- Scin—Scintilla
- SB—Scintilla and Berling—on each

Current Sources
- Bat—Battery
- Mag—Magneto

Spark Plugs Make
- AC—AC Spark Plug Co.
- BG—BG Corporation
- Bos—Bosch
- Cha—Champion
- HT—Hurley Townsend

Starter Make
- Ben—Bendix
- EC—Eclipse or Coffman
- Ecl—Eclipse
- EH—Eclipse or Haywood

Method of Starting
- CA—Compressed Air
- CE—Compressed Air or Electric
- D—Direct
- EM—Electric Motor
- HE—Hand Crank or Electric Motor
- IN—Inertia
- PS—Propeller Swing

Engine Manufacturers
- 1—Aeronautical Corp. of America
- 2—Milwaukee Parts Corp.

FIFTEEN manufacturers are represented in this table of aircraft engine specifications, as compared with 16 last year. With one exception each manufacturer has at least one model for which a Department of Commerce approved-type certificate has been issued. All of the models with the exception of two Conquerors are air-cooled. While the great majority of the engines are of the radial type, inverted in line, V engines and horizontal engines are also listed. One Kinner and one Continental model have L-head cylinders, while all the remainder have the valves in the head. The maximum displacement is that of the Twin Wasp, viz., 1830 cu. in., which has a take-off horsepower rating of 1000 and weighs 1265 lb. Two Wright Cyclones also have a 1000-hp. take-off rating, which is the highest listed. The highest cruising horsepower is that of the Twin Wasp, viz., 625.

There seems to be still some confusion among manufacturers with respect to rating practice. There are now three horsepower ratings, viz., maximum except take-off, take-off, and cruising. In the majority the take-off rating is the absolute maximum, but this is not so in every case, the maximum except take-off being greater than the take-off rating in a few instances. Calling the average cruising rating 100, the average take-off rating is 138 and the average "maximum except take-off" rating, 143. Inversely, if the take-off rating is taken as 100 the average cruising rating is 70. The majority of the engines require fuels of 87 octane rating. Specific weights range from 4.83 lb. per cruising horsepower in the case of one of the smallest engines to 1.77 lb. for large radials. On the basis of maximum horsepower, specific weights are much lower, of course.

FOREIGN AIRPLANE ENGINES

MAKE AND MODEL	Arrangement	Cooling Medium	Number of Cylinders Bore and Stroke (Ins.)	Total Piston Displacement (Cu. Ins.)	Compression Ratio	BMEP at Cruising HP (Lbs. per Sq. In.)	Blower Ratio	Cylinder Material (See footnotes)	No. of Valves per Cylinder: Intake	No. of Valves per Cylinder: Exhaust	Valve Arrangement	Maximum (Except Take-off): Horsepower	Maximum (Except Take-off): R.P.M.	Maximum (Except Take-off): At Sea Level or Altitude (Ft.)	Take-off: Horsepower	Take-off: R.P.M.	Cruising: Horsepower	Cruising: R.P.M.	Octane Rating of Fuel Required	Propeller Drive	Weight (Lbs.): Engine Dry—Without Hub or Starter	Weight (Lbs.): Per Cruising HP	Carburetors: Number and Make Fitted	Carburetors: Fuel Pump Supplied	Ignition System: Make	Ignition System: Current Sources	Ignition System: Number Used	Starting: Make	Starting: Method	Installation Dimensions (Ins.): Overall: Length	Overall: Height or Overall Diameter	Overall: Width	Height above Engine Bed	Center to Center Engine Bearers
BRITISH																																		
A.B.C.....Tiger IX	Hor	Air	4-4.2x4.8	244.0	5.60	130	.....	10	1	1	OH			SL			75	1875	...	D	219.0	2.92	1-Cla	No	BTH	Mag	2	.....	PS	25.50	28.00	39.00	.....	.....
Armstrong Sid.....Tiger IX	Rad	Air	14-5½x6	1996.0	6.20	104	5.40	7	1	1	I	804	2450	7200	880	2375	560	2150	87	G	1220.0	2.18	1-Cla	Yes	BTH	Mag	2	Own	HE	68.30	50.80	33.27	.....	.....
Armstrong Sid.....Tiger VI	Rad	Air	14-5½x6	1996.0	6.20	104	5.40	7	1	1	I	810	2450	6400	840	2150	560	2150	87	G	1180.0	2.11	1-Cla	Yes	BTH	Mag	2	Own	HE	65.00	50.80	33.80	.....	.....
Armstrong Sid.....Cheetah IX	Rad	Air	7-5¼x5¼	834.0	6.35	104	5.40	7	1	1	I	345	2425	7800	368	2300	230	2100	87	D	635.0	2.76	1-Cla	Yes	BTH	Mag	2	Own	HE	52.90	47.70	22.22	.....	.....
Armstrong Sid.....Cheetah IX	Rad	Air	7-5¼x5½	834.0	6.35	106	6.52	7	1	1	I	350	2425	7300	340	2100	235	2100	87	D	635.0	2.70	1-Cla	Yes	BTH	Mag	2	Own	HE	48.70	47.70	21.85	.....	.....
Armstrong Sid.....Cheetah VA	Rad	Air	7-5¼x5½	834.0	5.20	102	1.00	7	1	1	I	328	2400	SL	296	2100	225	2100	87	D	596.0	2.65	1-Cla	Yes	BTH	Mag	2	.....	.....	.....	51.50	.....	.....	.....
Bristol.....Mercury VIII	Rad	Air	9-5¾x6½	1519.0	.....	159*	.....	.....	.....	.....	.....	840	2750	14000	730	2650	.....	.....	...	G	980.0	1.17*	.....	.....	.....	Mag	2	.....	.....	.....	51.50	.....	.....	.....
Bristol.....Mercury IX	Rad	Air	9-5¾x6½	1519.0	.....	159*	.....	.....	.....	.....	.....	840	2750	14000	730	2650	.....	.....	...	G	1005.0	1.09*	.....	.....	.....	Mag	2	.....	.....	.....	55.30	.....	.....	.....
Bristol.....Pegasus X	Rad	Air	9-5¾x7½	1753.0	.....	159*	.....	.....	.....	.....	.....	915	2600	6250	960	2475	.....	.....	...	G	1015.0	1.28*	.....	.....	.....	Mag	2	.....	.....	.....	55.30	.....	.....	.....
Bristol.....Pegasus Xc	Rad	Air	9-5¾x7½	1753.0	.....	137*	.....	.....	.....	.....	.....	790	2600	5500	910	2475	.....	.....	...	G	1005.0	1.09*	.....	.....	.....	Mag	2	.....	.....	.....	55.30	.....	.....	.....
Bristol.....Pegasus XI	Rad	Air	9-5¾x7½	1753.0	.....	159*	.....	.....	.....	.....	.....	915	2600	6250	960	2475	.....	.....	...	G	1005.0	1.09*	.....	.....	.....	Mag	2	.....	.....	.....	55.30	.....	.....	.....
Bristol.....Pegasus XII	Rad	Air	9-5¾x7½	1753.0	.....	159*	.....	.....	.....	.....	.....	915	2600	6250	960	2475	.....	.....	...	G	1005.0	1.09*	.....	.....	.....	Mag	2	.....	.....	.....	55.30	.....	.....	.....
Bristol.....Pegasus XX	Rad	Air	9-5¾x7½	1753.0	.....	161*	.....	.....	.....	.....	.....	925	2600	10000	830	2475	.....	.....	...	G	1015.0	1.09*	.....	.....	.....	Mag	2	.....	.....	.....	55.30	.....	.....	.....
Cirrus-Hermes.....Major	I	Air	4-4.72x5.12	386.1	5.80	102	.....	7	1	1	I	148	2450	SL	135	2100	109	2200	70	D	325.0	2.98	1-Cla	Yes	BTH	Mag	2	BTH	EM	42.32	29.41	17.05	.....	15.20
Cirrus-Hermes.....Minor	I	Air	4-3.74x5.00	229.6	5.80	95	.....	7	1	1	I	90	2600	SL	75	2200	63	2300	70	D	195.0	3.10	1-Cla	Yes	BTH	Mag	2	BTH	EM	37.72	25.00	16.50	.....	15.20
Napier.....Dagger Series II	H6	Air	24-3⅛x3¾	1027.5	7.75	125	6.47	7	1	1	OH	755	4000	12500	710	3500	565	3500	87	G	1280.0	2.27	1-Cla	Yes	BTH	Mag	2	Rot	In	80.00	45.12	23.00	22.62	17.12
Napier.....Dagger Series III	H6	Air	24-3⅛x3¾	1027.5	7.75	139	5.04	7	1	1	OH	805	4000	5000	760	3500	630	3500	87	G	1280.0	2.03	1-Cla	Yes	BTH	Mag	2	Rot	In	80.00	45.12	23.00	22.62	17.12
Napier.....Rapier Series V	H4	Air	16-3½x3½	538.8	7.00	109	6.33	7	1	1	OH	340	4000	13000	335	3500	260	3500	87	G	713.0	2.74	1-Cla	Yes	BTH	Mag	2	Rot	GD	57.37	37.00	21.62	17.50	18.50
Napier.....Rapier Series VI	H4	Air	16-3½x3½	538.8	7.00	130	5.27	7	1	1	OH	395	4000	5800	365	3500	310	3500	87	G	713.0	2.30	1-Cla	Yes	BTH	Mag	2	Rot	GD	57.37	37.00	21.62	17.50	18.50
Napier.....Rapier Series VI	H4	Air	16-3½x3½	538.8	7.00	130	5.27	7	1	1	I	108	3750	SL	95	3230	100	3400	70	G	164.0	1.64	1-Cla	Yes	Rot	Mag	2	Rot	EM	22.00	27.50	.....	.....	19.75
Pobjoy.....Niagara IV	Rad	Air	7-3.19x3.43	191.4	6.50	122	.....	7	1	1	I	108	3750	SL	95	3230	100	3400	70	G	164.0	1.64	1-Own	Yes	BW	Mag	2	Own	HA	72.35	35.60	24.40	19.60	17.25
Rolls-Royce.....Kestrel IV, V, VI	V60	Liq	12-5.00x5.50	1296.0	6.00	119	8.83	2	2	2	OH	640	2900	14000	700	2240	485	2500	87	G	955.0	1.97	1-Own	Yes	BW	Mag	2	Own	HA	72.35	35.60	24.40	19.60	17.25
Rolls-Royce.....Kestrel VII, VIII, IX	V60	Liq	12-5.00x5.50	1296.0	6.00	134	6.92	2	2	2	OH	730	2900	5250	700	2375	548	2500	87	G	955.0	1.74	1-Own	Yes	BW	Mag	2	Own	HA	72.35	35.60	24.40	19.60	17.25
Rolls-Royce.....Kestrel X, XI, XII	V60	Liq	12-5.00x5.50	1296.0	7.00	127	.....	2	2	2	OH	635	2900	SL	560	2375	517	2500	87	G	900.0	1.74	2-Own	Yes	BW	Mag	2	Own	HA	63.48	35.60	24.40	19.60	17.25
Rolls-Royce.....Kestrel XIV, XV, XVI	V60	Liq	12-5.00x5.50	1296.0	6.00	127	9.41	2	2	2	OH	745	3000	14500	670	2225	540	2600	87	G	955.0	1.77	1-Own	Yes	BW	Mag	2	Own	HA	72.35	35.60	24.40	19.60	17.25
Rolls-Royce.....Kestrel IV, V, VI (V.P.)	V60	Liq	12-5.00x5.50	1296.0	6.00	119	8.83	2	2	2	OH	640	2900	14000	760	2750	485	2500	87	G	985.0	2.03	1-Own	Yes	BW	Mag	2	Own	HA	72.35	35.60	24.40	19.60	17.25
Rolls-Royce..Kestrel VII, VIII, IX (V.P.)	V60	Liq	12-5.00x5.50	1296.0	6.00	134	6.92	2	2	2	OH	730	2900	14000	820	2750	548	2500	87	G	985.0	1.80	1-Own	Yes	BW	Mag	2	Own	HA	72.35	35.60	24.40	19.60	17.25
Rolls-Royce..Kestrel XIV, XV, XVI (V.P.)	V60	Liq	12-5.00x5.50	1296.0	6.00	127	9.41	2	2	2	OH	745	3000	14500	745	2750	517	2600	87	G	985.0	1.91	1-Own	Yes	BW	Mag	2	Own	HA	72.35	35.60	24.40	19.60	17.25
CZECHOSLOVAKIA																																		
Walter.....Atom	H	Air	2-3.35x3.78	67.1	5.20	113	.....	7	1	1	I	28	3000	SL	...	...	25	2600	68	D	88.2	3.52	2-Ama	Yes	Bos	Mag	2	.....	PS	20.08	18.10	32.09	.....	.....
Walter.....Mikron	I	Air	4-3.35x3.78	133.0	5.20	117	.....	7	1	1	I	54	2800	SL	48	2300	50	2550	68	D	132.3	2.64	1-Cla	Yes	Scin	Mag	2	Own	HC	31.65	25.00	13.46	.....	9.84
Walter.....Minor	I	Air	4-4.14x4.53	244.0	5.30	122	.....	7	1	1	I	96	255.	SL	77	2050	85	2260	68	D	205.0	2.41	1-Cla	Yes	Scin	Mag	2	Own	HC	44.09	24.80	17.32	.....	11.89
Walter.....Junior	I	Air	4-4.53x5.51	354.8	5.20	117	.....	7	1	1	I	120	2300	SL	...	...	105	2000	68	D	297.6	2.84	1-Cla	Yes	Scin	Mag	2	Own	HC	46.46	30.19	19.49	.....	21.26
Walter.....Major-4	I	Air	4-4.65x5.51	373.6	5.20	121	.....	7	1	1	I	130	2350	SL	120	2050	120	2100	73	D	308.6	2.57	1-Cla	Yes	Scin	Mag	2	Own	HC	46.46	30.19	19.49	.....	21.26
Walter.....Major-6	I	Air	6-4.65x5.51	561.2	5.20	128	.....	7	1	1	I	205	2350	SL	190	2050	190	2100	73	D	385.8	2.03	2-Cla	Yes	Scin	Mag	2	Own	HE	59.84	31.58	19.29	.....	25.20
Walter.....Sagitta I-RC	V60	Air	12-4.65x5.51	1120.6	5.50	118	7.55	7	1	1	I	450	2800	6562	430	2400	400	2400	85	G	815.7	2.05	1-Str	Yes	Scin	Mag	2	Own	Opt	70.36	30.75	28.54	.....	25.20
Walter.....Sagitta II-RC	V60	Air	12-4.65x5.51	1120.6	5.50	118	10.30	7	1	1	I	470	2800	12139	.....	.....	400	2400	85	G	815.7	2.05	1-Str	Yes	Scin	Mag	2	Own	Opt	70.36	30.75	28.54	.....	25.20
Walter.....Gemma I	Rad	Air	9-4.13x4.72	570.4	5.30	117	.....	7	1	1	I	165	1850	SL	.....	.....	150	1785	68	D	359.4	2.39	1-Zen	Yes	Scin	Mag	2	Own	CA	32.40	40.95	.....	.....	14.57
Walter.....Scolar	Rad	Air	9-4.13x3.94	475.8	5.40	121	1.00	7	1	1	I	180	2500	SL	.....	.....	210	2200	75	D	363.8	1.73	1-Str	Yes	Scin	Mag	2	Own	HA	34.64	42.21	.....	.....	20.28
Walter.....Bora II	Rad	Air	9-4.13x4.72	570.4	6.30	133	1.00	7	1	1	I	225	2500	SL	.....	.....	230	2400	80	G	379.2	1.65	1-Str	Yes	Scin	Mag	2	Own	HA	40.47	42.21	.....	.....	20.28
Walter.....Bora II-R	Rad	Air	9-4.13x4.72	570.4	6.30	133	1.00	7	1	1	I	245	2600	SL	.....	.....	.....	.....	...	G	612.9	2.36	1-Str	Yes	Scin	Mag	2	Own	HA	50.35	48.90	.....	.....	18.90
Walter.....Castor II	Rad	Air	7-5.32x6.69	1038.8	6.00	111	1.00	7	1	1	I	340	2000	SL	300	1750	260	1800	75	D	707.7	2.08	1-Str	Yes	Scin	Mag	2	Own	HA	50.35	49.69	.....	.....	19.53
Walter.....Pollux II	Rad	Air	9-5.32x6.69	1335.9	6.00	112	1.00	7	1	1	I	450	2000	SL	400	1750	340	1800	80	D	707.7	2.08	1-Str	Yes	Scin	Mag	2	Own	HA	58.60	49.69	.....	.....	19.53
Walter.....Pollux II-R	Rad	Air	9-5.32x6.69	1335.9	6.00	103	1.00	7	1	1	I	480	2250	SL	425	1950	360	2070	80	G	758.4	2.10	1-Str	Yes	Scin	Mag	2	Own	HA	55.75	46.93	.....	.....	25.20
Walter.....Super Castor I-RC	Rad	Air	9-5.32x5.75	1146.8	5.50	119	7.55	7	1	1	I	450	2200	SL	.....	.....	380	2200	85	G	782.6	2.06	1-Zen	Yes	Scin	Mag	2	Own	HA	55.75	46.93	.....	.....	25.20
Walter.....Super Castor II-RC	Rad	Air	9-5.32x5.75	1146.8	5.50	110	10.30	7	1	1	I	450	2200	SL	.....	.....	350	2200	85	G	782.6	2.24	1-Zen	Yes	Scin	Mag	2	Own	HA	55.75	46.93	.....	.....	25.20
FRENCH																																		
Farman.....7EAr	Rad	Air	7-4.53x5.32	600.22	5.20	73	1.00	3	1	1	L	150	2150	SL	190	2150	105	1900	....	G	503.0	4.79	1-Str	.....	Scin	.....	2	Own	Car	44.29	44 10	41.34	.....	.....
Farman.....7ED	Rad	Air	7-4.53x5.32	600.22	5.20	82	1.00	3	1	1	L	170	2150	SL	190	2150	118	1900	....	D	392.0	3.32	1-Str	.....	Scin	.....	2	Own	Car	44.88	43.31	41.34	.....	.....
Farman.....9EBr	Rad	Air	9-4.53x5.32	788.33	5.20	83	1.00	3	1	1	L	220	2150	SL	265	2150	152	1900	....	G	531.0	3.49	1-Str	.....	Scin	.....	2	Own	CA	44.88	33.94	43.70	.....	.....
Farman.....12Wlrs	Wl	Liq	12-5.32x5.12	1365.72	6.40	111	2.00	1	2	2	I	550	2250	16404	600	2250	385	2000	....	G	1097.0	2.84	3-Zen	.....	Duc	.....	2	Own	CA	67.14	42.60	43.70	.....	.....
Farman.....12WKrs	Wl	Liq	12-5.32x5.12	1365.72	6.40	115	2.60	1	2	2	I	600	2500	22966	650	2500	445	2250	....	G	1148.0	2.58	3-Zen	.....	Duc	.....	2	Own	CA	59.21	29.06	25.75	.....	.....
Farman.....12 Crs	V60-I	Liq	12-3.94x4.72	690.41	7.40	103	2.60	1	1	1	I	400	3400	19680	450	3400	275	3050	....	G	650.0	2.36	4-Zen	.....	Duc	.....	2	Own	CA	.....	50.78	.....	.....	.....
Gnome-Rhone.....Mistral Major 14No	Rad	Air	14-5.75x6.50	2358.80	6.10	139*	8.94	7	1	1	I	950	2300	12000	900	2360	.....	.....	87	G	1300.7	1.37*	1-Str	Yes	RB	Mag	2	Own	EM	.....	55.12	.....	.....	.....
Gnome-Rhone.....Mistral Major 18L	Rad	Air	18-5.75x7.09	3308.64	6.10	145*	5.65	7	1	1	I	1300	2150	12000	1400	2150	.....	.....	87	G	1622.6	1.25*	1-Bro	Yes	RB	Mag	2	Own	EM	.....	37.40	.....	.....	.....
Gnome-Rhone.....Mistral Major 14M	Rad	Air	14-4.80x4.57	1157.78	6.50	148*	8.24	7	1	1	I	650	3000	12000	700	3000	.....	.....	87	G	881.8	1.36*	1-Bro	Yes	RB	Mag	2	Own	EM	.....	37.40	.....	.....	.....
Hispano Suiza.....12Y21	V60	Liq	12-5.91x6.69	2196.0	7.00	133*	10.00	7	1	1	OH	910	.....	11811	880	2400	.....	.....	85	G	1036.2	1.14*	6-Own	Yes	RB	Mag	2	Vlet	CA	67.72	36.61	29.92	.....	.....

MAKE AND MODEL	Arrangement	Cooling Medium	Number of Cylinders Bore and Stroke (Ins.)	Total Piston Displacement (Cu. Ins.)	Compression Ratio	BMEP at Cruising HP (Lbs. per Sq. In.)	Blower Ratio	Cylinder Material (See footnotes)	No. of Valves per Cylinder: Intake	No. of Valves per Cylinder: Exhaust	Valve Arrangement	RATINGS: Maximum (Except Take-off): Horsepower	Maximum (Except Take-off): R.P.M.	Maximum (Except Take-off): At Sea Level or Altitude (Ft.)	Take-off: Horsepower	Take-off: R.P.M.	Cruising: Horsepower	Cruising: R.P.M.	Octane Rating of Fuel Required	Propeller Drive	Weight (Lbs.): Engine Dry—Without Hub or Starter	Weight (Lbs.): Per Cruising HP	Carburetors: Number and Make Fitted	Carburetors: Fuel Pump Supplied	Ignition System: Make	Ignition System: Current Sources	Ignition System: Number Used	Starting: Make	Starting: Method	Installation Dimensions (Ins.): Overall: Length	Overall: Height or Overall Diameter	Overall: Width	Height above Engine Bed	Center to Center Engine Bearers
FRENCH—Continued																																		
Hispano Suiza.....12Xirs-1	V60	Liq	12-5.12x6.69	1647.0	5.80	158*	10.00	7	1	1	OH	720	2200	.....	740	2600	.....	.....	85	G	848.6	1.18*	6-Own	Yes	RB	Mag	2	Viet	CA	61.81	35.92	28.34	.....	.....
Hispano Suiza.....14AA-04	Rad	Air	14-6.13x6.69	2759.6	6.20	151*	10.00	7	1	1	I	1120	2125	9350	1070	2125	.....	.....	85	G	1311.7	1.17*	1-Own	Yes	RB	Mag	2	Viet	CA	64.96	49.60	.....	.....	.....
Hispano Suiza.....14AB-02	Rad	Air	14-5.32x5.12	1589.0	6.20	141*	9.38	7	1	1	I	680	2400	11483	650	2400	.....	.....	85	D	1025.1	1.51*	1-Own	Yes	RB	Mag	2	Viet	CA	55.51	39.76	.....	.....	.....
Hispano Suiza.....4PGI	I	Air	4-4.72x5.51	386.1	5.30	103	.....	7	1	1	I	105	1800	SL	100	.....	85	1700	72	D	319.5	3.76	1-Zen	Yes	Sev	Mag	2	Viet	CA	50.00	27.56	17.32	60.79	21.26
Renault.....4PEI	I	Air	4-4.72x5.51	386.1	5.70	107	.....	7	1	1	I	150	2400	SL	140	.....	120	2300	72	D	319.5	2.66	1-Str	Yes	Sev	Mag	2	Viet	CA	50.00	27.56	17.32	60.79	21.26
Renault.....6QO1	I	Air	6-4.72x5.51	579.5	6.40	111	.....	7	1	1	I	220	2500	SL	220	.....	190	2350	72	D	481.0	2.53	2-Str	Yes	Sev	Mag	2	Viet	CA	60.63	34.25	18.11	11.42	27.56
Renault.....6QO3	I	Air	6-4.72x5.51	579.5	6.50	116	7.61	7	1	1	I	220	2500	6562	240	.....	200	2350	85	D	520.0	2.60	1-Str	Yes	Sev	Mag	2	Viet	CA	63.76	34.25	18.11	11.42	27.56
Renault.....12RO1	V60	Air	12-4.72x5.51	1159.0	6.40	111	11.70	7	1	1	I	450	2500	11975	430	.....	380	2350	85	G	1420.0	1.77	1-Str	Yes	Sev	Mag	2	Viet	CA	.....	50.66	66.54	39.37	38.98
Renault.....14T	Rad	Air	14-6.06x6.93	2806.0	6.40	122	10.80	7	1	1	I	1000	2000	12795	940	.....	800	1850	85	G	1420.0	1.77	1-Str	Yes	Sev	Mag	2	Viet	CA	.....	.....	.....	.....	.....
Salmson.....9AdR-60cv	Rad	Air	9-2.76x3.39	181.8	5.60	101*	.....	7	1	1	I	66	2850	SL	.....	.....	.....	.....	75	G	176.4	2.68*	1-Zen	No	Own	Mag	2	.....	HC	32.01	25.91	.....	.....	.....
Salmson.....9AeRS-75cv	Rad	Air	9-2.76x3.39	181.8	5.60	126*	1.30	7	1	1	I	85	2950	SL	.....	.....	.....	.....	80	G	180.8	2.13*	1-Zen	No	Own	Mag	2	.....	HC	35.56	25.91	.....	.....	.....
Salmson.....9ND-175cv	Rad	Air	9-3.94x5.51	603.9	5.30	125*	.....	7	1	1	I	205	2150	SL	.....	.....	.....	.....	75	D	328.5	1.60*	1-Zen	Yes	Own	Mag	2	Viet	CA	36.81	37.80	.....	.....	.....
Salmson.....9Abe-280cv	Rad	Air	9-4.92x6.69	1142.5	5.30	105*	.....	7	1	1	I	325	2150	SL	.....	.....	.....	.....	75	D	562.2	1.73*	1-Zen	Yes	Own	Mag	2	Viet	CA	42.13	45.67	.....	.....	.....
Salmson.....9Na-350cv	Rad	Air	9-5.51x6.30	1350.5	5.30	117*	.....	7	1	1	I	390	1950	SL	.....	.....	.....	.....	75	D	617.3	1.58*	1-Zen	Yes	Own	Mag	2	Viet	CA	43.31	46.46	.....	.....	.....
Salmson.....9NaS-350-630cv	Rad	Air	9-5.51x6.30	1350.5	5.30	112*	1.60	7	1	1	I	400	2100	11483	.....	.....	.....	.....	80	D	661.4	1.64*	1-Zen	Yes	Own	Mag	2	Viet	CA	46.85	46.46	.....	.....	.....
Salmson.....18AbS-570-965cv	Rad	Air	18-4.92x7.09	2426.6	5.30	89*	1.60	7	1	1	I	570	2100	11483	.....	.....	.....	.....	80	D	1014.1	1.78*	1-Zen	Yes	Own	Mag	2	Viet	CA	56.81	48.03	.....	.....	.....
Salmson.....6TE-170cv	I	Air	6-4.53x5.04	486.2	5.50	136*	.....	.....	1	1	I	199	2380	SL	.....	.....	.....	.....	75	D	440.9	2.21*	2-Str	Yes	Own	Mag	2	Viet	CA	67.64	27.95	15.35	8.66	.....
Salmson.....6TES-250cv	I	Air	6-4.53x5.04	486.2	5.50	163*	1.30	.....	1	1	I	250	2500	SL	.....	.....	.....	.....	80	D	458.6	1.83*	1-Zen	Yes	Own	Mag	2	Viet	CA	72.13	27.95	15.35	8.66	.....
GERMAN																																		
Argus.....As10C	V90	Air	8-4.72x5.51	772.7	5.90	109	.....	7	1	1	I	220	1940	SL	240	2000	200	1880	80	D	469.7	2.34	2-Sum	Yes	Bos	Mag	2	Own	HA	43.51	28.27	34.64	9.29	18.74
Brandenburg.....Sh14A-4	Rad	Air	7-4.25x4.72	469.7	6.00	108	.....	7	1	1	I	160	2200	SL	.....	.....	128	2050	80	D	297.6	2.32	1-Sum	Yes	Bos	Mag	2	Own	CA	38.39	36.85	.....	.....	18.81
Brandenburg.....SAM322H2	Rad	Air	9-6.06x6.30	1636.0	6.40	126	6.25	7	1	2	I	650	2150	SL	.....	.....	520	2000	87	G	1080.3	2.08	1-Sum	Yes	Bos	Mag	2	Bos	HC	50.59	52.13	.....	.....	22.05
Hirth.....60R-2	I	Air	4-4.01x4.33	220.0	5.80	106	.....	3	1	1	F	80	2400	SL	72	2320	66	2240	74	D	214.0	3.24	1-Sum	Opt	Bos	M&B	e	Own	HC	33.70	27.10	15.40	11.80	6.50
Hirth.....504A-1	I	Air	4-4.13x4.53	244.0	6.00	117	.....	3	1	1	F	100	2500	SL	90	2400	80	2320	77	D	230.0	2.67	1-Pal	Opt	Bos	M&B	e	Own	HC	37.70	28.60	19 90	8.45	11 00
Hirth.....Diesel OF2	V60	Liq	12-6.50x8.27	3295.2	15.00	100	.....	8	2	2	...	700	1750	3281	800	1790	720	1720	...	G	2061.3	2.67	.....	Yes	.....	.....	...	DG	...	74.02	42.32	38.58	25.20	29.92
Mercedes-Benz.....Jumo L5G	I	Liq	6-6.30x7.48	1398.1	5.50	.....	.....	8	1	1	I	.....	.....	.....	375	1700	340	.....	80	D	754.1	2.01	1-Sum	Yes	Bos	Mag	2	Own	CA	70.86	47.84	25.59	.....	34.10
Junkers.....Jumo 205C	I	Liq	6-4.13x(e)	1013.8	17.00	100	.....	8	No	No	No	.....	.....	.....	600	2200	510	2000	HO	G	1146.6	2.24	None	Yes	.....	.....	...	Own	CA	76.50	52.17	21.54	.....	22.85
Junkers.....Jumo 205D	I	Liq	6-4.13x(e)	1013.8	17.00	105	.....	8	No	No	No	.....	.....	.....	700	2600	590	2200	HO	G	1146.6	1.94	None	Yes	.....	.....	...	Own	CA	76.50	52.17	21.54	.....	22.85
ITALIAN																																		
Fiat.....A24R	V60	Liq	12-5.51x6.89	2002.0	5.70	115	.....	8	2	2	OH	700	2000	SL	.....	.....	525	1810	82	G	1212.5	2.31	2-Own	Yes	Mar	Mag	2	Own	CA	69.69	41.93	28.93	25.39	.....
Fiat.....A30RA	V60	Liq	12-5.31x5.51	1713.6	8.00	77	.....	8	2	2	OH	550	2750	9842	600	2600	415	2500	84	G	1058.2	2.55	3-Own	Yes	Mar	Mag	2	Own	CA	63.94	36.8.	25.71	21.81	.....
Fiat.....A54	Rad	Air	7-4.13x4.72	493.5	5.50	84	.....	7	1	1	I	140	2100	SL	.....	.....	100	1910	74	D	330.7	3.31	1-Str	Yes	Mar	Mag	2	Own	CA	21.30	36.61	25.71	21.81	.....
Fiat.....A70	Rad	Air	7-4.53x4.53	510.0	5.75	120	10.22	7	1	1	I	205	2200	SL	.....	.....	155	2000	82	D	368.2	2.37	1-Str	Yes	Mar	Mag	2	Mar	CA	20.71	36.61	25.71	21.81	.....
Fiat.....A74RC	Rad	Air	14-4.53x4.53	1906.3	6.50	145*	8.78	7	1	1	I	840	2400	12467	.....	.....	.....	.....	87	G	1245.6	1.48*	1-Str	Yes	Mar	Mag	2	Own	CA	41.14	47.05	25.71	21.81	.....
Fiat.....A80RC	Rad	Air	18-5.51x6.50	2788.9	6.50	135*	9.37	7	1	1	I	1000	2100	13451	1000	1996	.....	.....	87	G	1598.4	1.60*	1-Own	Yes	Mar	Mag	2	Own	CA	45.47	52.56	25.71	21.81	.....
Isotta Fraschini.....750R	W	Liq	18-5.12x6.69	4073.1	5.70	70	.....	8	2	2	I	920	1900	SL	.....	.....	550	1530	87	G	1543.2	2.81	6-Own	Yes	Mar	Mag	2	Own	CA	85.04	41 92	40.55	.....	.....
Isotta Fraschini.....750RC	W	Liq	18-5.12x6.69	4073.1	5.70	70	11.46	8	2	2	I	900	1900	SL	850	1750	550	1530	87	G	1609.4	2.92	6-Own	Yes	Mar	Mag	2	Own	CA	86.37	47.44	40.58	.....	.....
Isotta Fraschini.....XIR	V	Liq	12-5.75x6.30	1991.0	6.70	103	.....	8	2	2	I	895	2250	SL	.....	.....	450	1740	87	G	1289.7	2.86	4-Own	Yes	Mar	Mag	2	Own	CA	75.16	40.16	32.40	.....	.....
Isotta Fraschini.....XIRC40	V	Liq	12-5.75x6.30	1991.0	6.40	105	10.71	8	2	2	I	900	2400	SL	860	2140	500	1900	87	G	1322.8	2.64	4-Own	Yes	Mar	Mag	2	Own	CA	83.86	42.84	32.64	.....	.....
Isotta Fraschini.....Caccia	V	Liq	12-4.92x5.12	1257.2	5.70	119*	.....	8	2	2	I	480	2550	SL	.....	.....	.....	.....	87	D	840.0	1.75*	4-Zen	Yes	Mar	Mag	2	Own	CA	69.92	31.89	29.13	.....	.....
Isotta Fraschini.....Astro 7C-21	Rad	Air	7-6.06x6.30	1272.2	5.95	110	7.65	8	1	1	I	450	2100	SL	420	2000	320	1800	87	D	723.1	2.26	1-Own	Yes	Mar	Mag	2	Own	CA	19.84	47.25	.....	.....	.....

GENERAL
*—Based on Maximum Horsepower.
(e)—2 x 6.30 (2 cycle)
HO—Heavy Oil
Opt—Optional
SL—Sea Level

CYLINDER ARRANGEMENT
Hor—Horisontal
H4—Four banks of 4 cylinders each in H formation
H6—Four banks of 6 cylinders each in H formation
I—In line
Rad—Radial
V—Vee
V60—V Type—60 degrees
V60-I—V Type—60 degrees, inverted
V90—V Type, 90 degrees
W—Three banks of cylinders
WI—Three banks of cylinders—inverted

COOLING
Liq—Liquid

CYLINDER MATERIAL
1—Aluminum with cast iron liner
2—Aluminum with steel liner
3—Cast iron
7—Steel with Aluminum Heads
8—Steel
10—Cast iron with steel sleeves

VALVE ARRANGEMENT
F—F-Head
I—In head with push rods and rocker arms
OH—Overhead camshaft
L—Ell head—valve at side

PROPELLER DRIVE
D—Direct
G—Geared

CARBURETOR MAKE
Ama—Amal
Bro—Bronzania
Cla—Claudel-Hobson
Pal—Pallas
Str—Stromberg
Zen—Zenith

IGNITION and STARTING SYSTEMS—MAKE
Bos—Bosch
BW—British Thompson Houston or Watford
BTH—British Thompson Houston
Duc—Ducellier
DG—Druckluft & Gluhkerzen
Mar—Mareili
RB—Robert Bosch
Rot—Rotax
Scin—Scintilla

STARTING METHOD
CA—Compressed Air
Car—Cartridge
EM—Electric Motor
GD—Gas distributor and hand turning gear
HA—Hand Crank
HC—Hand Crank from machine
HE—Hand Crank or Electric motor
In—Inertia
PS—Propeller Swing

CURRENT SOURCES
Bat—Battery
e—One magneto and one battery
Mag—Magneto
M&B—Magneto and Battery

AUTOMOTIVE DIESEL AND OTHER HEAVY OIL ENGINES

MAKE AND MODEL	GENERAL: Designed for	Type	Number of Cylinders Bore and Stroke	Piston Displacement (Cu. Ins.)	Maximum Continuous HP. at Specified R.P.M.	Compression Ratio to 1	Cycle	Compression Pressure at Specified R.P.M.	Maximum Pressure (Lbs. per Sq. In.)	B.M.E.P. at Maximum HP (Lbs. per Sq. In.)	Weight per Rated HP (Lbs.)	VALVES: Maximum Torque in Lbs. Ft. at Specified R.P.M.	Weight Complete (Lbs.)	Arrangement	Intake Port Diam. and Lift	Exhaust Port Diam. and Lift	Timing Deg. before or after Top Center: Inlet Opens	Inlet Closes	Exhaust Opens	Exhaust Closes	PISTONS: Material	Length	No. of Rings per Piston	Weight with Rings and Pin (Lbs.)	CONNECTING RODS: Material	Center to Center Length	Weight with Cap and Bushings	INJECTION VALVE: Valve Type (Open or Closed)	Type Orifice Single, Multiple or Pintle	Injection Pressure (Lbs. per Sq. In.)	Fuel Consumption at Rated Load (Lbs. per B.H.P. Hr.)	Starting Method
Allis Chalmers.....KO	Tr	DI	4-5¼x6½	563.0	74-1050	6.5	4	155- 500	450	99	29.5	370- 750	2180	VI	2.25-.500	1.87-.500	5A	140B	136A	9A	Cl	8.18	4	11.1	1045	13.00	11.0	C	Mul	1300	.49	H, E
Allis Chalmers.....LO	Tr	DI	6-5¼x6½	844.0	111-1050	6.5	4	155-1050	450	99	19.6	560- 750	2180	VI	2.25-.500	1.87-.500	5A	140B	136A	9A	Cl	8.18	4	11.1	1045	13.00	11.0	C	Mul	1300	.43	H, E
American Monovalve.....2-35	T, Tr, B, M, R	DT	2-5½x7	332.5	35-1200	14.7	4	500-1000	750	69	55.1	162-1700	1930	Mo[1]	2.12-.500	2.12-.500	TC	25AB	45BB	TC	Ala	8.00	5	10.7	NCM	13.68	13.0	C	Pin	1500	.44	Ele
American Monovalve.....4-75	T, Tr, B, M, R	DT	4-5½x7	665.0	75-1200	14.7	4	500-1000	750	74	36.4	325-2800	2735	Mo[1]	2.12-.500	2.12-.500	TC	25AB	45BB	TC	Ala	8.00	5	10.7	NCM	13.68	13.0	C	Pin	1500	.44	Ele
American Monovalve.....6-125	T, Tr, B, M, R	DT	6-5½x7	997.5	115-1200	14.7	4	500-1000	750	76	30.4	487-3900	3500	Mo[1]	2.12-.500	2.12-.500	TC	25AB	45BB	TC	Ala	8.00	5	10.7	NCM	13.68	13.0	C	Pin	1500	.44	Ele
Atlas Imperial.....2AM115	M	DI	2-4¾x6½	230.0	18- 950	15.0	4	500- 950	700	65	83.3	.....	1500	VI	1.62-.390	1.50-.468	5B	35AB	40BB	TC	Cl	8.25	6	11.5	1040	13.00	10.8	C	Mul	3500	.43	E(x)
Atlas Imperial.....4AM115	M	DI	4-4¾x6½	460.0	45-1000	15.0	4	500- 950	700	77	52.8	.....	2380	VI	1.62-.390	1.50-.468	5B	35AB	40BB	TC	Cl	8.25	6	11.5	1040	13.00	10.8	C	Mul	3500	.41	Ele
Bolinders.....W3	M	PC	2-4¾x4¾	168.3	20-1000	....	2	.....	.....	47	49.2	.....	985	....	Two	Cycle	.....	.....	.....	.....	Cl	.....	.....	.....	.....	.....	.....	.....	Sin	.....	.50	A, E, H
Bolinders.....W5	Tr, M	PC	2-5½x7½	318.5	30- 900	....	2	.....	.....	41	.....	.....	.....	....	Two	Cycle	.....	.....	.....	.....	Cl	.....	.....	.....	.....	.....	.....	.....	Sin	.....	.48	A, E, H
Bolinders.....W7S2	Tr, M, R	DI	2-7½x7½	567.7	50- 900	....	2	.....	.....	39	42.0	.....	2100	....	Two	Cycle	.....	.....	.....	.....	Cl	.....	.....	.....	.....	.....	.....	.....	Sin	.....	.....	A, E, H
Bolinders.....W7S4	Tr, M, R	DI	4-7½x7½	1135.5	100- 900	....	2	.....	.....	39	37.0	.....	3700	....	Two	Cycle	.....	.....	.....	.....	Cl	.....	.....	.....	.....	.....	.....	.....	Sin	.....	.....	A, E
Buda.....4LD-196	C, T, R	AC	4-3⅝x4¾	196.3	49-2400	14.5	4	.....	.....	83	18.4	145-1300	900	VI	1.37-.402	1.12-.402	20B	142B	135A	13A	Al	4.93	5	2.98	6140	9.50	3.41	C	Pin	2000	....	Ele
Buda.....4LDM-196	M	AC	4-3⅝x4¾	196.0	49-2400	14.5	4	.....	.....	83	20.4	145-1300	1000	VI	1.37-.402	1.12-.402	20B	142B	135A	13A	Al	4.93	5	2.98	6140	9.50	3.41	C	Pin	2000	....	Ele
Buda.....4LD-1161	Tr, R	AC	4-6½x8¾	1161.0	127-1000	12.0	4	370- 600	625	87	.....	815- 700	....	VI	2.37-.687	2.12-.687	20B	145B	140A	15A	Al	9.31	6	17.50	1035	17.75	27.0	C	Pin	1600	.46	Ele
Buda.....6LD-275	C, T, Tr, R	AC	6-3½x4¾	274.2	72-2400	13.5	4	.....	.....	87	16.5	200-1300	1190	VI	1.31-.402	1.12-.402	20B	142B	135A	13A	Al	4.93	5	2.85	6140	9.50	3.41	C	Pin	2000	....	Ele
Buda.....6LDM-275	M	AC	6-3½x4¾	274.2	64-2000	13.5	4	370- 600	625	92	.....	.....	....	VI	1.31-.402	1.12-.402	20B	142B	135A	13A	Al	4.93	5	2.85	6140	9.50	3.41	C	Pin	2000	.48	Ele
Buda.....6LD-415	T, Tr, B, R	AC	6-4x5½	415.0	91-2000	13.3	4	370- 600	625	87	15.5	308-1100	1415	VI	1.46-.476	1.37-.476	12B	144B	145A	6A	Al	5.25	5	4.01	6140	11.00	4.87	C	Pin	2000	.47	Ele
Buda.....6LDM-415	M	AC	6-4x5½	415.0	89-1800	13.3	4	370- 360	625	94	17.9	308-1100	1590	VI	1.46-.476	1.37-.476	12B	144B	145A	6A	Al	5.25	5	4.01	6140	11.00	4.87	C	Pin	2000	.47	Ele
Buda.....6LD-468	T, Tr, B, R	AC	6-4½x5½	468.0	103-2000	13.0	4	370- 600	625	87	13.9	345-1100	1435	VI	1.59-.476	1.37-.476	12B	144B	145A	6A	Al	5.25	5	4.65	6140	11.00	4.87	C	Pin	2000	.47	Ele
Buda.....6LDM-468	M	AC	6-4½x5½	468.0	103-1800	13.0	4	370- 600	625	97	15.6	345-....	1610	VI	1.59-.476	1.37-.476	12B	144B	145A	6A	Al	5.25	5	4.65	6140	11.00	4.87	C	Pin	2000	.47	Ele
Buda.....6LD-638	T, Tr, B, R	AC	6-4¾x6	638.0	.....	....	4	370- 600	625	....	.....	460-1100	2360	VI	1.75-.516	1.56-.516	15B	145B	140A	10A	Al	6.00	5	5.43	6140	12.50	10.25	C	Pin	1600	....	Ele
Buda.....6LDM-638	M	AC	6-4¾x6	638.0	120-1600	12.5	4	370- 600	625	93	21.7	460-1100	2600	VI	1.75-.516	1.56-.516	15B	145B	140A	10A	Al	6.00	5	5.43	6140	12.50	10.25	C	Pin	1600	....	Ele
Buda.....6LD-691	T, Tr, B, R	AC	6-4¾x6½	691.0	130-1600	12.5	4	370- 600	625	93	20.0	500-1100	2600	VI	1.75-.516	1.56-.516	15B	145B	140A	10A	Al	6.00	5	5.43	6140	12.50	10.25	C	Pin	1600	....	Ele
Buda.....6LDM-691	M	AC	6-4¾x6½	691.0	130-1600	12.5	4	375- 600	625	93	20.0	500-1100	2800	VI	1.75-.516	1.56-.516	15B	145B	140A	10A	Ala	6.00	5	5.43	6140	12.50	10.25	C	Pin	1600	....	Ele
Buda.....6LD-909	T, Tr, B, R	AC	6-5¼x7	909.0	155-1500	12.2	4	370- 600	625	90	19.4	700- 900	3010	VI	1.90-.540	1.78-.540	17B	147B	141A	11A	Al	6.50	5	9.30	6140	14.25	13.10	C	Pin	1600	.46	Ele
Buda.....6LDM-909	M	AC	6-5¼x7	909.0	152-1500	12.2	4	370- 600	625	88	22.4	700- 900	3400	VI	1.90-.540	1.78-.540	17B	147B	141A	11A	Al	6.50	5	9.30	6140	14.25	13.10	C	Pin	1600	.47	Ele
Buda.....6LDM-909-C	M	AC	6-5¼x7	909.0	152-1500	12.2	4	370- 600	625	88	22.4	700- 900	3400	VI	1.90-.540	1.78-.540	17B	147B	141A	11A	Al	6.50	5	9.30	6140	14.25	13.10	C	Pin	1600	.47	Ele
Buda.....6LD-1611	Tr, R	AC	6-6½x8¾	1611.0	204-1000	12.0	4	370- 600	625	100	29.7	1135- 600	6050	VI	2.37-.687	2.12-.687	20B	145B	140A	15A	Al	9.31	5	15.75	1035	17.75	27.00	C	Pin	....	.47	Ele
Buda.....6LD-1742	Tr, R	AC	6-6½x8¾	1742.0	200-1000	12.0	4	370- 600	625	91	30.5	1220- 600	6100	VI	2.37-.687	2.12-.687	20B	145B	140A	15A	Al	9.31	5	17.50	1035	17.75	27.00	C	Pin	1600	.47	Ele
Buda.....6LDM-1742	M	AC	6-6½x8¾	1742.0	200-1100	12.0	4	370- 600	625	83	33.0	1220- 600	6600	VI	2.37-.687	2.12-.687	20B	145B	140A	15A	Al	9.31	5	17.50	1035	17.75	27.00	C	Pin	....	.49	Ele
Caterpillar.....D-6600	Tr, R	PC	3-5¾x8	623.0	45- 850	15.5	4	595- 850	830	67	72.5	396- 650	3260	VI	2.06-.468	2.06-.468	12B	210A	130A	22A	Ala	9.18	6	14.00	1040	15.00	19.00	O	Sin	1750	.45	G
Caterpillar.....D-4400	Tr, R	PC	4-4¼x8½	312.0	33-1400	16.0	4	625-1400	840	60	59.8	180- 900	1975	VI	1.50-.375	1.50-.375	12B	210A	130A	22A	Ala	6.12	6	5.25	1040	10.25	8.50	O	Sin	1500	.48	G
Caterpillar.....D-8800	Tr, R	PC	4-5¾x8	831.0	60- 850	15.5	4	595- 850	830	67	68.3	513- 700	4090	VI	2.06-.468	2.06-.468	12B	210A	130A	22A	Ala	9.18	6	14.00	1040	15.00	19.00	O	Sin	1750	.43	G
Caterpillar.....D-13000	Tr, R	PC	6-5¾x8	1246.0	95- 850	15.5	4	595- 850	830	71	53.0	824- 650	5035	VI	2.06-.468	2.06-.468	12B	210A	130A	22A	Ala	9.18	6	14.00	1040	15.00	19.00	O	Sin	1750	.45	G
Caterpillar.....D-17000	Tr, R	PC	8-5¾x8	1662.0	120- 850	15.5	4	595- 850	830	67	63.3	1020- 650	7600	VI	2.06-.468	2.06-.468	12B	210A	130A	22A	Ala	9.18	6	14.00	1040	15.00	23.00	O	Sin	1750	.44	G
Cooper Bessemer.....BN	M	DI	6-5½x7¾	1104.8	128-1200	15.5	4	520-1200	750	75	30.9	.....	3900	VI	2.50-.580	2.12-.580	20B	145B	145A	20A	Al	9.37	6	12.0	1045	14.00	14.00	C	Mul	5000	.45	Ele
Cooper Bessemer.....EN	R	DI	6-8x10½	3172.2	300- 900	13.0	4	410- 900	700	83	36.0	.....	10800	VI	3.12-.757	3.12-.757	20B	145B	145A	20A	Al	14.00	6	43.25	.....	21.00	38.2	C	Mul	7000	.39	Air
Cooper Bessemer.....BN	M	DI	8-5½x7¾	1472.8	168-1200	15.5	4	520-1200	750	75	29.2	.....	4900	VI	2.50-.580	2.12-.580	20B	145B	145A	20A	Al	9.37	6	12.0	1045	14.00	14.00	C	Mul	5000	.45	Ele
Cooper Bessemer.....EN	R	DI	8-8x10½	4231.6	400- 900	13.0	4	410- 900	700	83	33.7	.....	13500	VI	3.12-.757	3.12-.757	20B	145B	145A	20A	Al	14.00	6	43.25	.....	21.00	38.20	C	Mul	7000	.39	Air
Cummins.....HB	T, B, M, R	DI	4-4⅞x6	448.0	100-1800	17.0	4	.....	.....	98	16.4	.....	1640	HI	1.93-.378	1.93-.378	6A	46AB	50BB	14A	Cl	6.25	4	10.20	4130	12.00	10.00	C	Mul	.....	.45	.....
Cummins.....HB	T, B, M, R	DI	6-4⅞x6	672.0	150-1800	17.0	4	.....	.....	98	14.1	.....	2120	HI	1.93-.378	1.93-.378	6A	46AB	50BB	14A	Cl	6.25	4	10.20	4130	12.00	10.00	C	Mul	.....	.45	.....
Fairbanks Morse[2].....36A	Tr, M	TC	6-4½x6	510.7	60-1200	16.8	4	560-1200	750	77	....	330-1050	....	VI	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C	Pin	1700	.48	Ele
Fairbanks Morse.....38C-5	M, R	DI	6-5x6	1413.4	300-1200	18.0	2	650-1200	1150	70	....	316-1100	....	....	Two	Cycle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.44	A, E
Fairbanks Morse.....38C-5	M, R	DI	8-5x6	1884.5	400-1200	18.0	2	650-1200	1150	70	....	316-1100	....	....	Two	Cycle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.44	A, E
Fairbanks Morse.....36A	Tr, M	TC	8-5½x7½	1426.0	160-1200	14.7	4	487-1200	750	74	....	904-1050	....	VI	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C	Pin	1700	.48	A, E
Guiberson.....GH15	M, Ind	TC	4-4¾x6	425.0	45-1200	16.0	4	580-1200	820	70	48.8	205-1100	2200	VI	1.93-.437	1.93-.437	.....	.....	.....	.....	Ni	6.68	4	8.00	FS	12.00	.....	C	Sin	1000	.46	Ele
Guiberson.....GH25	M, Ind	TC	4-6x7½	848.0	65- 900	16.0	4	540- 900	800	67	40.0	380- 900	2600	VI	2.37-.562	2.37-.562	.....	.....	.....	.....	Ni	8.15	4	11.00	FS	15.00	.....	C	Sin	1000	.45	G
Hall-Scott.....142	M	....	6-5x6	706.8	133-1800	16.0	....	.....	.....	83	24.8	420-1200	3300	VI	2.25-.421	2.03-.421	.....	.....	.....	.....	Ala	8.25	....	10.87	AS	11.00	9.20	.....	.....	.....	.....	.....
Hercules.....DJXB	T, Tr, B, M, R	TC	6-3½x4½	260.0	77-2600	15.0	4	475-1000	750	90	12.7	178-1400	980	VI	1.62-.375	1.12-.375	12B	44AB	44BB	12A	SAA	4.84	6	3.25	CNM	8.00	4.90	C	Pin	2100	.44	G-E
Hercules.....DJXC	T, Tr, B, M, R	TC	6-3⅜x4½	298.0	83-2600	14.5	4	475-1000	750	85	12.3	208-1400	1020	VI	1.62-.375	1.12-.375	12B	44AB	44BB	12A	SAA	4.84	6	3.55	CNM	8.00	4.90	C	Pin	2100	.44	G-E
Hercules.....DRXB	T, Tr, B, M, R	TC	6-4⅜x5¼	474.0	120-2000	14.5	4	475-1000	750	100	14.8	350-1300	1780	VI	2.00-.395	1.37-.395	12B	44AB	44BB	12A	SAA	6.84	6	7.10	CNM	9.37	9.20	C	Pin	1650	.40	G-E
Hercules.....DRXC	T, Tr, B, M, R	TC	6-4⅜x5¼	529.0	103-1400	14.5	4	475-1000	750	110	17.7	388-1300	1820	VI	2.00-.395	1.37-.395	12B	44AB	44BB	12A	SAA	6.84	6	7.60	CNM	9.37	9.20	C	Pin	1650	.40	G-E
Hercules.....DHXB	T, Tr, B, M, R	TC	6-5x6	707.0	176-1800	14.5	4	475-1000	750	110	14.3	535-1400	2520	VI	2.37-.500	1.62-.500	5B	50AB	45BB	10A	SAA	7.53	6	9.53	CNM	12.00	11.70	C	Pin	1650	.40	G-E
Hercules.....DHXC	T, Tr, B	TC	6-5½x6	855.0	98- 900	14.5	4	475-1000	750	101	28.0	572- 900	2550	VI	2.37-.500	1.62-.500	5B	50AB	45BB	10A	SAA	7.53	6	10.00	CNM	12.00	11.70	C	Pin	1650	.40	G-E
Kermath.....DJX	M	TC	6-3⅜x4½	288.0	82-2600	14.5	4	475-1000	750	87	14.9	178-1350	1225	VI	1.62-.375	1.12-.375	12B	44AB	44BB	12A	SAA	4.84	6	3.55	CNM	8.00	4.90	C	Pin	2100	.44	Ele
Kermath.....DRX	M	TC	6-4⅜x5¼	474.0	113-1800	14.5	4	475-1000	750	105	17.7	350-1300	2000	VI	2.00-.395	1.37-.395	12B	44AB	44BB	12A	SAA	6.84	6	7.10	CNM	9.37	9.20	C	Pin	1650	.40	G-E
Kermath.....DHX	M	TC	6-5x6	707.0	160-1600	14.5	4	475-1000	750	112	19.4	535-1400	3100	VI	2.37-.500	1.62-.500	5B	50AB	45BB	10A	SAA	7.53	6	9.53	CNM	12.00	11.70	C	Pin	1650	.40	Ele
Red Wing.....35-40HP	M	DI	4-3¾x4¾	210.0	40-2000	7.2	4	120-....	450	75	21.2	140-1150	850	VI	1.62-.375	1.25-.312	5B	140B	140A	15A	Al	4.18	4	.....	1045	8.75	.....	O	Mul	1500	....	Ele(x)
Red Wing.....55-60HP	M	DI	4-4½x5¼	334.0	62-1800	7.2	4	120-....	450	82	19.4	220-1150	1200	VI	1.75-.437	1.50-.406	TC	140B	140A	10A	Al	5.50	4	.....	1045	10.50	.....	O	Mul	1500	....	Ele(x)
Red Wing.....80-90HP	M	DI	4-6x6½	735.0	78- 900	6.0	4	120-....	450	93	29.6	300- 700	2300	VI	2.37-.593	2.00-.593	10A	140B	140A	10A	Cl	7.06	4	.....	1045	13.25	.....	O	Mul	1500	....	Ele(x)

Red Wing	65-75HP	M		DI	6–3¾x4½	282.0	70–2400	7.5	4	120–		450	82	13.6	185–1200	950	VI	1.62–.437	1.62–.437	5A	133B	135A	10A	Al	4.37	4		1045	8.00		O	Mul	1500		Ele(x)
Red Wing-Comet	75-100HP	M		TC	6–4½x5½	462.0	100–2200	17.0	4	550–		650	78	22.0	275–1200	2200	VI	1.62–.550	1.37–.550	6B	45AB	45BB	6A	Al	5.46	5		3140	10.25		C	Sin	1500		Ele(x)
Red Wing-Comet	120-140HP	M		TC	6–5x5½	648.0	140–2000	17.0	4	550–		650	86	18.6	410–1200	2600	VI	2.00–.550	1.50–.550	6B	45AB	45BB	6A	Al	6.53	5		3140	11.75		C	Sin	1500		Ele(x)
Red Wing	160-180HP	M		DI	6–6½x7	1395.0	178–1200	5.6	4	120–		450	84	31.5	900– 600	5600	VI	2.50–.704	2.25–.700	5B	140B	140A	5A	Cl	9.25	4		1045	15.37		O	Mul	1500		Ele(x)
Red Wing	180-200HP	M		DI	6–7x7	1616.0	205–1200	5.5	4	120–		450	84	28.3	1025– 750	5800	VI	2.50–.704	2.25–.700	5B	140B	140A	5A	Cl	9.25	4		1045	15.37		O	Mul	1500		Ele(x)
Regal	DB	M			2–6x8	452.4	30– 800	14.0					66	86.7		2600	VI		2.50–.437					Cl	10.25			CS												
Sterling	Crankless Diesel	M			4–4½x5⅞	620.0	150–1200	17.0	2			825	80					Two	Cycle														2500	.43	Ele
Superior	MA-2	M		TC	2–4½x5¼	183.0	24–1400	11.8	4	360– 700		675	74	41.7	110–1400	1000	VI	1.87–.432	1.50–.483	8B	39AB	39BB	8A	Nl	6.68	6		4145	11.50		C	Pin	1600		Ele
Superior	MA-4	M		TC	4–4½x5¼	366.0	53–1500	11.8	4	360– 700		675	76	31.2	212–1500	1650	VI	1.87–.432	1.50–.483	8B	39AB	39BB	8A	Nl	6.68	6		4145	11.50		C	Pin	1600		Ele
Superior	MA-6	M		TC	6–4½x5¼	549.0	88–1600	11.8	4	360– 700		675	77	27.0	325–1600	2300	VI	1.87–.432	1.50–.483	8B	39AB	39BB	8A	Nl	6.68	6		4145	11.50		C	Pin	1600		Ele
Superior	MA-8	M		TC	8–4½x5¼	732.0	126–1800	11.8	4	360– 700		675	76	25.3	435–1800	3200	VI	1.87–.432	1.50–.483	8B	39AB	39BB	8A	Ala	6.68	5		4145	11.50		C	Pin	1600		Ele
Waukesha-Hesselman	XBKH	T, Tr		DI*	4–3¾x4¾	210.0	39–1800	6.2	4	130–1000		450	82	18.3	122–1200	715	VI	1.62–.380	1.25–.380	6B	140B	140A	15A	Cl	4.56	4	3.80	1045	8.75	2.87	O	Mul	1200	.56	Ele
Waukesha-Hesselman	VBKH	T, Tr		DI*	4–4½x5¼	334.0	61–1800	6.2	4	130–1000		450	80	15.0	221–1100	915	VI	1.75–.450	1.50–.400	TC	140B	140A	10A	Cl[c]	5.96	4	6.00	1045	10.50	5.30	O	Mul	1200	.58	Ele
Waukesha-Hesselman	HBSH	M		DI*	4–5x6½	511.0	65–1050	5.7	4	125–1000		550	96	28.9	338– 600	1875	VI	2.00–.580	1.75–.580	10A	140B	140A	10A	Cl	8.18	4	12.25	1045	13.25	9.30	O	Mul	1200	.56	Ele
Waukesha-Hesselman	HBSH	M		DI*	4–5x8½	735.0	88–1050	5.6	4	125–1000		550	90	21.6	453– 700	1900	VI	2.37–.580	2.00–.580	10A	140B	140A	10A	Cl	8.18	4	15.80	1045	13.25	9.30	O	Mul	1200	.56	Ele
Waukesha-Hesselman	HBKH	M		DI*	4–6x8½	1062.0	112– 950	5.4	4	125–1000		550	88	28.6	662– 600	3200	VI	2.50–.570	2.25–.570	TC	135B	145A	10A	Cl	9.28	4	23.50	1040	18.00	17.40	O	Mul	1200	.57	Ele
Waukesha-Hesselman	WBFH	R		DI*	4–6½x8	1062.0	112– 950	5.4	4	125–1000		550	88	28.6	662– 600	3200	VI	2.50–.570	2.25–.570	5A	133B	135A	10A	Al	4.87	4	2.56	1045	8.00	2.56	O	Mul	1200	.56	Ele
Waukesha-Hesselman	6BKH	T, Tr		DI*	6–3¾x4½	282.0	63–2300	6.4	4	135–1000		450	77	11.9	172–1200	750	VI	1.62–.370	1.25–.370	5A	133B	135A	10A	Al	4.87	4	2.56	1045	8.00	2.56	O	Mul	1200	.56	Ele
Waukesha-Comet	6DA-100	T, B		TC	6–4½x5½	462.0	95–2000	17.0	4	550–1000		750	81	17.6	275–1100	1675	VI	1.62–.540	1.37–.540	6B	135B	135A	6A	Ala	6.50	5	5.62	3140	11.75	5.10	C	Pin	1500	.53	Ele
Waukesha-Comet	6DA-140	T, B		TC	6–5x5½	648.0	129–1800	17.0	4	550–1000		750	88	16.7	410–1100	2165	VI	2.00–.540	1.50–.540	6B	135B	135A	6A	Ala	6.50	5	7.80	3140	11.75	8.50	C	Pin	1500	.51	Ele
Waukesha-Hesselman	6ELH	R		DI*	6–6½x7	1395.0	165–1050	5.6	4	125–1000		550	89	30.0	900– 540	4950	VI	2.50–.700	2.25–.700	5B	140B	140A	5A	Cl	9.25	4	20.50	1040	15.37	19.00	O	Mul	1200	.57	G-E
Waukesha-Hesselman	6EKH	R		DI*	6–7x7	1616.0	188–1050	5.5	4	125–1000		550	88	26.5	1030– 540	4975	VI	2.50–.700	2.25–.700	5B	140B	140A	5A	Cl	9.25	4	24.75	1040	15.37	19.00	O	Mul		.57	G-E
Waukesha-Hesselman	6LRH	R		DI*	6–8½x8½	2894.0	300– 900	5.6	4	125–1000		550	91	26.5	1820– 580	7950	VI	3.25–.250	2.75–.280	8A	140B	140A	10A	Cl	11.65	5	50.00	1040	20.67	28.50	O	Mul	1200	.53	G-E

BRITISH

Associated Equipment	A-168	T, B		TC	4–4.72x5.74	403.8	85–2400	16.5	4	500–1000		750	69	13.8	270–1100	1170	VI	1.57–.433	1.53–.433	10B	142B	140A	8A	Ala	6.29	6		CN	10.70		O	Pin	1543	.44	Ele
Associated Equipment	A-171	T, B		TC	6–4.13x5.74	467.7	115–2400	16.5	4	500–1000		700	81	10.7	310–1100	1235	VI	1.65–.488	1.49–.488	10B	142B	140A	8A	Ala	5.90	7		CN	10.70		O	Pin	1543	.40	Ele
Crossley	VR-6	T, Tr, B		PC	6–4.43x5.50	510.0	100–1700	17.0	4	580–1000		765	91	15.1	385–1000	1512	VI	1.75–.437	1.50–.437	5B	221A	130A	12A	Al	6.06	6	5.62	2340	13.25	8.75			1500	.42	Ele
Dorman-Ricardo	4DS	T, B		TC	4–3.54x4.72	186.2	50–2500	17.0	4	575–1000		850	85	18.0	120–1500	900	VI	1.56–.441	1.31–.441					Ala	4.37	5	2.41	35-11	9.50	4.68		Pin	1470	.40	H, E
Dorman-Ricardo	4AJ	T, B		TC	4–3.74x5.94	248.5	60–2200	17.0	4	575–1000		850	87	14.1	159–1000	844	VI	1.50–.420	1.31–.420					Ala	5.06	5		CN	10.50			Pin	1470		H, E
Dorman-Ricardo	4JUR	T, B		TC	4–4.00x5.11	257.1	58–2000	17.5	4	575–1000		850	89	21.2	166–1200	1230	VI	1.50–.433	1.37–.381					Ala	6.00	5	3.52	S76	10.50	6.61		Pin	1470	.40	H, E
Dorman-Ricardo	4HW	T, B		TC	4–4.52x5.11	329.4	75–2000	16.5	4	550–1000		850	90	17.7	210–1200	1330	VI	1.87–.526	1.62–.446					Ala	5.00	5	4.87	S76	10.50	8.65		Pin	1470		H, E
Dorman-Ricardo	6JUR	T, B		TC	6–4.00x5.11	385.7	90–2400	17.5	4	575–1000		850	77	14.9	240–1400	1340	VI	1.50–.433	1.37–.381					Ala	5.00	5	3.52	S76	10.50	6.61		Pin	1470	.40	Ele
Dorman-Ricardo	6HW	T, B		TC	6–4.52x5.11	494.2	112–2000	16.5	4	550–1000		850	90	16.9	330–1400	1900	VI	1.87–.526	1.62–.446					Ala	6.00	5	4.87	S76	10.50	8.65		Pin	1470		Ele
Dorman	6DL	R		DI	6–4.72x7.08	744.8	91–1000	14.0	4	500–1000		850	96				VI	1.87–.621	1.75–.621					Ala	6.71	6		CN	14.25		C	Mul	2370	.40	H, E, A
E.M.B.[5]	M	M		TC	3–4.00x6.00	225.7	39–1500	15.2	4	450–1500		900	91	34.4	138– 500	1344	HI	1.56–.375	1.56–.375	20B	125A	35A	25A	Ala	4.96	5	3.37	NS	12.50	8.25	C	Pin	2000	.42	H, E
Fowler-Sanders[6]	4B	Tr, M, R		TC	4–4.25x6.25	354.6	40–1100	15.5	4	450–1100		800	81	52.5	210–1000	2100	VI	1.50–.339	1.50–.338	5A	145B	135A	5A	Cl	6.93	5	8.50	1035	13.57	10.45	C	Sin	2060	.38	H, E
Fowler-Sanders	4C	Tr, M, R		TC	4–7.00x9.00	1385.6	120– 900	13.6	4	450– 900		720	76	52.5	788– 700	6300	VI	2.62–.613	2.62–.493	10B	135B	130A	5A	Al	10.02	5	22.65	1035	18.00	38.50	C	Sin	1960	.37	A, E
Fowler-Sanders	6B	Tr, M, R		TC	6–4.25x6.25	531.9	60–1100	15.5	4	450–1100		800	81	50.0	320– 900	3000	VI	1.50–.339	1.50–.338	5A	145B	135A	5A	Cl	6.93	5	8.50	1035	13.57	10.45	C	Sin	2060	.40	H, E
Fowler-Sanders	6A	Tr, R		TC	6–4.72x7.08	747.7	80–1100	14.5	4	450–1000		720	77	48.0	406– 900	3840	VI	1.75–.408	1.75–.342	10B	136B	127A	10A	Al	7.59	5	7.60	CS	15.75	18.39	C	Sin	1960	.42	Ele
Fowler-Sanders	6C	Tr, M, R		TC	6–7.00x9.00	2078.4	180– 900	13.6	4	450– 900		720	76	45.0	1180– 700	8100	VI	2.75–.613	2.62–.493	10B	135B	130A	5A	Al	10.02	5	22.65	1035	18.00	38.50	C	Sin	1960	.37	A, E
Leyland	E-61	T, B		DI	4–4.50x5.50	349.9	67–1800	16.0	4	500–1000		900	84	17.3	212–1300	1160	VI	1.71–.437	1.71–.437	8B	224A	224B	8A	Ala	6.18	5	5.25	NS	11.50	6.00	C	Sin	2352	.42[7]	Ele
Leyland	E-39	T, B		DI	6–4.50x5.50	524.8	99–1800	16.0	4	500–1000		900	83	12.9	317–1100	1280	VI	1.71–.437	1.71–.437	8B	224A	224B	8A	Ala	6.18	5	5.25	NS	11.50	6.00	C	Sin	2352	.39[8]	Ele
Leyland	10 Litre	R		DI	6–4.62x6.00	604.8	117–1800	15.0	4	470–1000		1000	85	17.5	382–1000	2050	VI	2.00–.500	1.71–.500	8B	224A	224B	8A	Ala	5.87	5	5.25	NS	12.50	8.00	C	Mul	2646	.37[9]	Ele
McLaren	SLM-4	M, R		PC	4–3.74x4.92	216.0	30–1500	17.0	4	500–1500		750	73	36.7	115–1100	1100	VI	1.42–.400	1.42–.400	TC	145B	130A	10A	SA	4.64	5	6.00	NS	10.23	5.00	C	Pin	2600	.44	H
McLaren[10]	LM-6	M, R, A		PC	6–4.13x5.90	475.0	90–1800	17.0	4	500–1800		750	83	22.4	300–1300	2014	VI	1.65–.410	1.65–.410	TC	145B	130A	10A	SA	5.55	5	6.75	NS	12.40	8.40	C	Pin	2600	.44	Ele
McLaren[11]	MDB-8	M, R		PC	8–5.31x7.87	1400.0	140–1000	15.0	4	500–1000		750	79	43.5	950– 600	6100	VI	1.89–.470	1.89–.470	15B	161B	132A	16A	Cl	8.61	5	16.75	NS	15.15	19.38	C	Pin	1500	.47	Air
McLaren[12]	M40-8	M, R		PC	8–7.48x9.44	2724.0	320–1000	15.0	4	500–1000		750	93	30.9	2040– 580	9900	VI	2.91–1.10	2.91–1.10	15B	137B	130A	15A	Cl	10.23	5	27.00	NS	21.63	60.00	C	Pin	1500	.44	Air
McLaren	M44-8	M, R		PC	8–7.87x9.44	3660.0	350–1000	15.0	4	500–1000		750	76	29.2	2240– 580	10200	VI	2.91–1.10	2.91–1.10	15B	137B	130A	15A	Cl	10.23	5	30.00	NS	21.63	66.00	C	Pin	1500	.44	Air
Mirrlees Comet[13]	Z	M, R		TC	8–6.25x6.50	1600.0	200–1200	16.6	4	580–1200		860	82	46.0	960–1200	9195	VI	2.62–.780	2.12–.625	15B	35AB	45BB	15A	Ala	8.25	5	14.75	NS	17.00	26.00	C	Pin	2500	.41	Air
Mirrlees Comet[13]	U	M, R		TC	8–8.00x12.00	4824.0	480– 900	15.0	4	530– 900		760	88	44.8	2800– 900	21521	VI	3.50–1.00	2.81–.812	7½B	35AB	45BB	7½A	Ala	11.50	5	32.50	NS	29.50	46.00	C	Pin	3300	.38	Air
Napier-Culverin[14]		A		DI	6–4.75x16.50	1754.0	720–1700		2				96	24.8	3032–1352	1785		Two	Cycle															.37	Air
Paxman-Ricardo[15]	RQ	T, Tr, R		TC	6–4.62x5.87	590.9	90–1500	18.0	4	615–1000		750	80	50.5		4536	VI	1.87–.569	1.50–.569	7½B	27½A	37½B	7½A	Ala	6.50	6	9.18		14.00	17.68		Pin	1800	.41	A, E
Paxman-Ricardo[16]	RW	T, Tr, R		TC	8–5.50x7.00	1327.1	210–1500	16.0	4	550–1000		780	84	30.4		6384	VI	2.25–.762	1.81–.762	7½B	27½A	37½B	7½A	Ala	8.25	6	17.50		20.00	39.50		Pin	1800	.40	A, E
Paxman-Ricardo[17]	RZ	T, Tr, R		TC	8–6.87x10.00	3004.1	336–1000	16.5	4	530–1000		760	89	41.3		13888	VI	2.75–.777	2.75–.774	10B	35A	50B	10A	Ala	8.25	6	17.50		20.00	39.50		Pin	1800	.41	A, E
Perkins	Wolf	C, T, Tr, B, M, R		DI	4–3.34x4.75	167.8	45–2500	16.5	4	550–1500		850	85	10.9	111–1500	492	VI	1.18–.358	1.18–.358	20B	136B	135A	19A	Ala	4.00	5	1.87	CNM	10.00	3.75	C	Mul	2500	.39	H, E
Perkins	Lynx	T, Tr, B, M, R		DI	4–3.93x5.00	244.1	55–2400	16.5	4	550–1500		850	74	11.2	145–1000	616	VI	1.40–.358	1.40–.358	13B	135B	136A	10A	Ala	4.99	5	3.31	CNM	9.37	4.75	C	Mul	2500	.38	H, E
Perkins	Leopard I	C, T, Tr, B, M, R		DI	4–3.93x5.00	244.1	60–2400	16.5	4	550–1500		850	81	10.3	158–1500	616	VI	1.40–.358	1.40–.358	13B	135B	136A	10A	Ala	4.99	5	3.31	CNM	9.37	4.75	C	Mul	2500	.37	H, E
Perkins	Leopard II	C, T, Tr, B, M, R		DI	4–4.13x5.00	268.5	75–2400	16.5	4	550–1500		850	92	8.2	190–1500	611	VI	1.40–.358	1.40–.358	13B	135B	136A	10A	Ala	4.99	5	3.62	CNM	9.37	4.75	C	Mul	2500	.36	H, E

DANISH

Burmeister & Wain	615-VL-25	T, Tr, R		DI	6–8.90x9.84	1614.1	300–1100		2				67	17.6		5291		Two	Cycle					Per			66.13	SM		52.91				.40	Ele

FRENCH

Berliet	MDGW	T, Tr, B, M		TC	4–3.93x5.51	268.4	60–2000	18.0	4	640–2000		924	89	18.0	159–1700	11060	VI	1.57–.425	1.37–.425	10B	218A	221B	10A	Al	5.90	5	4.40	CN	11.23	6.61	C	Pin	1470	.41	E, I
Berliet	MDFW	T, Tr, B, M, R		TC	4–4.33x5.90	342.7	75–2000	17.0	4	597–2000		882	87	16.7	210–1400	11255	VI	1.78–.425	1.57–.425	10B	218A	221B	10A	Al	6.89	5	5.93	CN	12.30	9.14	C	Pin	1470	.42	E, I
Berliet	MDBR	T, Tr, B, M, R		TC	4–4.72x6.29	439.2	90–1800	16.5	4	568–		853	90	17.2	268–1400	1550	VI	1.89–.452	1.73–.452	10B	218A	221B	10A	Al	6.89	5	7.04	CN	12.00	10.71	C	Pin	1470	.41	A, E, I
Berliet	MDCW	T, Tr, B, M, R		TC	6–4.33x5.90	522.2	115–2000	17.0	4	597–2000		882	87	16.4	311–1400	1890	VI	1.78–.425	1.57–.425	10B	218A	221B	10A	Al	6.89	5	5.93	CN	12.30	9.14	C	Pin	1470	.42	Ele
Berliet	MDK[2c]	Tr, M, R		TC	6–5.31x7.08	930.2	150–1500	16.0	4	540–1500		825	85	40.2	578–1100	6018	VI	2.04–.539	1.81–.539	10B	218A	221B	10A	Al	7.36	5	10.64	CN	13.80	12.80	C	Pin	1470	.39	A, E
Lilloise[5, 14]	306	T, Tr, M		DI	3–4.25x12.61	600.2	75– 750	16.5	2	65– 750		882	66	53.0	166– 450	3969		Two	Cycle					Per	18.03	7					C	Mul		.41	Air
Rochet Schneider	425	C, T, Tr, B		TC	4–4.33x5.90	347.7	80–2000	16.0	4				91											Al		5					C	Sin	1138		Ele
Rochet Schneider	355	C, T, Tr, B, R		TC	6–4.33x5.90	524.6	115–1800	16.0	4				97											Al		5					C	Sin	1138		Ele
Unic	M-25	C, T, Tr, B		PC	4–4.33x5.11	301.4	85–2000	17.0	4	668–2000		825	86	15.9	370–2000	1036		1.48–.488	1.49–.488					Als		5	5.41	CN	10.84	7.75	C	Pin	1020	.47	
Unic	M-20	C, T, T, B		PC	6–4.13x6.49	522.8	95–1600	16.0	4	640–1600		811	90	18.8	633–1600	1786		1.49–.433	1.49–.433					Als		5	4.72	CN	12.99	8.59	C	Pin	1020	.48	
Unic	M-20	C, T, T, B		PC	6–4.13x6.49	522.8	95–1600	16.0	4	640–1600		811	90	17.0	782–1600	1874		1.49–.488	1.49–.488					Als		5	5.85	CN	12.79	10.70	C	Pin	1020	.48	
Unic	M-25	C, T, Tr, B		PC	6–4.52x6.49	627.2	110–1600	16.0	4	640–1600		811	87	17.0	782–1600	1874		1.49–.488	1.49–.488					Als		5	6.13	AS	14.37	12.23			1874	.44	Ele
Willeme	F4M-317	T, Tr		PC	4–4.72x6.69	468.9	80–1500		4	483–			90	21.9	84–1000	1753		2.00–....	2.00–....	12B	52A	52B	12A	Al		5	6.13	AS	14.37	12.23		Sin	1874	.44	Ele
Willeme	F6M-317	T, Tr		PC	6–4.72x6.69	703.4	110–1500		4	483–			83	19.5		2150		2.00–....	2.00–....	12B	52A	52B	12A	Al											Air
Salmson	SH-18	A		TC	18–4.64x5.90	1800.7	600–1500	18.0	2				88	20.6		1235		Two	Cycle																	Ele
Renault	4	C, T, Tr		DI	4–4.92x6.69	509.3	85–1600	16.0	4				83	19.4	91–1000	1647		–.393	–.393	11½B	35½AB	31BB	15A	Al	7.28	5		FS	14.56	9.29		Mul	441		Ele
Renault	6	C, T		DI	6–4.92x6.69	764.0	130–1500	16.0	4				90	18.7	148–1300	2425		–.393	–.393	11½B	35½AB	31BB	15A	Al	7.28	5		FS	14.56	9.29		Mul	441		Ele
Renault	V12	R		DI	12–5.51x6.69	1917.5	300–1500	16.0	4				83	15.5		4630		1.57–.393	1.57–.393	10B	26AB	45BB	5A	Al		6	12.56	FS	16.34	34.06		Mul	488	.40	Ele

AUTOMOTIVE DIESEL AND OTHER HEAVY OIL ENGINES—*Continued*

MAKE AND MODEL	GENERAL											VALVES									PISTONS				CONNECTING RODS			INJECTION VALVE				
	Designed for	Type	Number of Cylinders Bore and Stroke	Piston Displacement (Cu. Ins.)	Maximum Continuous HP. at Specified R.P.M.	Compression Ratio to 1	Cycle	Compression Pressure at Specified R.P.M.	Maximum Pressure (Lbs. per Sq. In.)	B.M.E.P. at Maximum HP (Lbs. per Sq. In.)	Weight per Rated HP (Lbs.)	Maximum Torque in Lbs. Ft. at Specified R.P.M.	Weight Complete (Lbs.)	Arrangement	Intake Port Diam. and Lift	Exhaust Port Diam. and Lift	Timing Deg. before or after Top Center: Inlet Opens	Inlet Closes	Exhaust Opens	Exhaust Closes	Material	Length	No. of Rings per Piston	Weight with Rings and Pin (Lbs.)	Material	Center to Center Length	Weight with Cap and Bushings	Valve Type (Open or Closed)	Type Orifices Single, Multiple or Pintle	Injection Pressure (Lbs. per Sq. In.)	Fuel Consumption at Rated Load (Lbs. per B.H.P. Hr.)	Starting Method
GERMAN																																
Deutz F4M-313	T, Tr, B, M, R	PC	4-3.93x5.11	249.1	55-2000	20.0	4	683-....	853	88	15.2	180-1200	838	VI	1.69-.432	1.57-.432	15B	55AB	45BB	25A	Ala	6.02	5	4.27	CM	11.81	8.77	C	Sin	2130	.58	Ele
Deutz F4M-316	T, Tr B M, R	PC	4-3.93x6.29	306.6	67-2000	22.0	4	782-....	853	87	14.8	202-1200	992	VI	1.69-.433	1.57-.433	15B	55AB	45BB	25A	Ala	6.02	5	4.27	CM	12.59	8.53	C	Sin	2130	.58	Ele
Deutz F4M-317	T Tr, B, M, R	PC	4-4.72x6.69	469.0	80-1500	18.0	4	597-....	853	90	19.3	318- 900	1543	VI	1.89-.570	1.89-.570	44B	84AB	84BB	44A	Ala	6.96	5	7.47	CM	14.37	11.62	C	Sin	2130	.55	Ele
Deutz F6M-313	T, Tr. B, M, R	PC	6-3.93x5.11	373.6	83-2000	20.0	4	683-....	853	88	13.0	268-1200	1080	VI	1.69-.433	1.57-.433	15B	55AB	45BB	25A	Ala	6.02	5	4.27	CM	11.81	8.77	C	Sin	2130	.58	Ele
Deutz F6M-316	T, Tr. B, M, R	PC	6-3.93x6.29	459.9	100-2000	22.0	4	782-....	853	86	13.7	328-1200	1367	VI	1.69-.433	1.57-.433	15B	55AB	45BB	25A	Ala	6.02	5	4.27	CM	12.59	8.53	C	Sin	2130	.58	Ele
Deutz F6M-317	T Tr, B, M. R	PC	6-4.72x6 69	703.6	120-1500	18.0	4	597-....	853	90	17.5	470- 900	2094	VI	1.89-.570	1.89-.570	44B	84AB	84BB	44A	Ala	6.96	5	7.47	CM	14.37	11.62	C	Sin	2130	.55	Ele
Deutz F8M-317	T, Tr, B, M, R	PC	8-4.72x6.69	938.2	160-1500	18.0	4	597-....	853	90	14.5	636- 900	2315	VI	1.89-.570	1.89-.570	44B	84AB	84BB	44A	Ala	6.96	5	7.47	CM	14.37	11.62	C	Sin	2130	.55	Ele
Henschel-Lanova .... T	T B	AC	4-4.13x5.51	295.5	65-2000	12.5	4	384-1000	640	87	17.0	540-1200	1102	VI	1.61-.393	1.61-.393	16B	40A	34B	10A	Ala	6.06	4	3.30	......	12.20	9.37	C	Pin	1470	.46	Ele
Henschel-Lanova .... S	T B	AC	6-4.13x5.51	443.7	95-2000	12.5	4	384-1000	640	84	16.3	540-1200	1543	VI	1.61-.393	1.61-.393	16B	40A	34B	10A	Ala	6.06	4	2.54	......	12.20	9.37	C	Pin	1470	.46	Ele
Junkers[6] .... 5.	C, T, Tr, B, R	DI	4-3.35x9.45	332.0	110-1500	17.0	2	....	....	87	15.0	455- 700	1653	....	Two	Cycle	......	......	......	......	Spec	6.29	..	......	Stl	(h)	......	O	......	3560	.42	Ele
Junkers[6] .... 7.	C T, Tr, B, R	DI	4-3.94x9.45	458.0	165-1500	17.0	2	....	....	95	13.1	600-1000	2160	....	Two	Cycle	......	......	......	......	Spec	6.29	..	......	Stl	(h)	......	O	......	3560	.42	Ele
Krupp M-661	T	PC	4-3.93x5.12	248.8	55-2200	18.0	4	569-1600	782	80	18.0	145-1600	992	HI	1.65-.393	1.57-.393	5B	40A	55B	5A	Ala	6.30	5	2.43	SMa	10.03	6.61	C	Sin	1397	.57	Ele
Krupp M-422	T	DI	4-3.34x9.45	331.8	125-1500	17.0	2	540-1100	924	100	15.9	448-1200	1984	....	Two	Cycle[19]	33B	78A	55½B	70½A	Cl	(c)	*5	(d)	CM	(e)	(f)	O	Spec	5880	.44	Ele
M.A.N. D-0524	T, Tr, B	DA	4-4.13x4.72	253.5	60-2200	15.0	4	470-....	750	85	16.2	144-1400	970	VI	1.57-.393	1.57-.393	......	......	......	......	Ala	6.10	4	4.06	Stl	9.84	6.78	C	Sin	1911	.44	Ele
M.A.N. D-0534	T, Tr, B	DA	4-4.13x5.12	274.7	65-2200	15.0	4	470-....	750	85	15.3	159-1400	992	VI	1.57-.393	1.57-.393	......	......	......	......	Ala	6.10	4	4.06	Stl	9.84	6.78	C	Sin	1911	.44	Ele
M.A.N. D-0530	T, Tr, B	DA	6-4.13x5.12	412.0	80-1900	15.0	4	470-....	750	81	16.0	217-1250	1279	VI	1.57-.393	1.57-.393	......	......	......	......	Ala	6.10	4	4.06	Stl	10.83	7.31	C	Sin	1911	.44	Ele
M.A.N. D-0540	T, Tr, B	DA	6-4.13x5.51	443.7	90-1800	15.0	4	470-....	750	89	14.7	253-1250	1323	VI	1.57-.393	1.57-.393	......	......	......	......	Ala	6.10	4	4.06	Stl	10.83	7.31	C	Sin	1911	.44	Ele
M.A.N. D-2086K	T, Tr, B, R	DA	6-4.72x7.09	745.0	110-1400	15.0	4	470-....	750	83	16.0	433-1100	1764	VI	1.85-.452	1.85-.452	......	......	......	......	Ala	7.87	4	6.32	Stl	14.17	12.46	C	Sin	1911	.44	Ele
M.A.N. D-3555	T, Tr, B, R	DA	6-5.31x6.10	812.0	150-1700	15.0	4	470-....	750	86	14.7	469-....	2205	VI	2.04-.551	2.04-.551	......	......	......	......	Ala	7.54	5	8.82	Stl	11.81	12.13	C	Sin	1911	.44	Ele
M.A.N. W6V-15-18	R	PC	6-5.90x7.08	1162.8	150-1500	18.0	4	497-....	782	68	19.9	517-1500	2988	VI	2.56-.591	2.56-.591	......	......	......	......	Ala	.....	5	14.33	Stl	14.96	20.94	..	Mul	1778	.44	Ele
M.A.N. W6V-17.5-22	R	PC	6-6.89x8.66	1932.5	220-1100	18.0	4	497-....	782	82	19.5	1034-1100	4299	VI	2.75-.630	2.75-.630	......	......	......	......	Ala	.....	4	18.96	Stl	16.56	34.83	..	Mul	1778	.43	Ele
M.A.N. W6V-22-30	R	PC	6-8.66x11.81	4172.4	400-1000	18.0	4	568-....	782	76	17.6	2079-1000	7055	VI	2.95-.748	2.67-.748	......	......	......	......	Ala	.....	7	18.08	Stl	22.83	63.93	..	Mul	2560	.37	Air
M.A.N. W8V-17.5-22	R	PC	8-6.88x8.66	2576.6	290-1100	18.0	4	497-....	782	81	20.4	1367-1100	5908	VI	2.75-.630	2.75-.630	......	......	......	......	Ala	.....	4	18.96	Stl	16.56	34.83	..	Mul	1778	.43	Air
M.A.N. L12V-17.5-18	R	PC	12-6.89x7.08	3172.0	420-1400	18.0	4	682-....	825	75	15.2	1555-1400	6393	VI	2.44-.551	2.40-.551	......	......	......	......	Ala	.....	6	17.64	Stl	14.96	33.06	..	Mul	2560	.44	Ele
Maybach 150HP GO40	M, R	DI	6-5.50x7.09	1014.0	150-1600	14.0	4	417-1400	854	73	13.9	506-1600	2090	VI	2.28-.562	2.28-.562	......	......	......	......	Ala	7.40	6	11.50	Stl	12.00	14.4(g)	C	Mul	2845	.39	Ele
Maybach 225HP GO56H	M, R	DI	6-6.31x7.87	1471.2	225-1450	14.0	4	427-1450	854	83	10.3	....	2315	VI	2.06-.562	2.06-.562	......	......	......	......	Ala	8.62	6	13.9	Stl	15.75	18.4(g)	C	Mul	2845	.39	Ele
Maybach 410HP GO56	M, R	DI	12-6.31x7.87	2942.4	410-1400	14.0	4	427-1400	854	79	5.12	518- 600	2100	VI	2.06-.562	2.06-.562	......	......	......	......	Ala	8.62	6	13.9	Stl	15.75	(k)(g)	C	Mul	2845	.40	Ele
Maybach[30] 600HP GO6	M, R	DI	12-6.31x7.87	2942.4	600-1400	13.5	4	484-1400	854	115	8.45	672-1400	5060	VI	2.06-.562	2.06-.562	......	......	......	......	Ala	8.62	6	13.6	Stl	15.75	(k)(g)	C	Mul	2845	.39	Ele
Mercedes-Benz OM-138	C, T	PC	4-3.54x3.93	155.2	45-3000	20.0	4	569-3000	....	77	15.4	88-1800	693	VI	1.32-....	1.32-....	25B	40AB	50BB	15A	Al	.....	4	......	......	......	......	O	Sin	1176	....	Ele
Mercedes-Benz OM-59	T Tr, B	PC	4-3.93x4.72	229.9	55-2000	17.0	4	605-2000	782	95	18.5	145-1400	1014	VI	1.65-.472	1.65-.472	TC	35AB	45BB	8A	Al	.....	5	......	......	......	......	O	Sin	1176	.44	Ele
Mercedes-Benz OM-65	T Tr, B	PC	4-4.13x5.51	295.9	70-2000	17.0	4	605-2000	782	94	15.4	185-1300	1080	VI	1.65-.472	1.65-.472	8B	45AB	45BB	8A	Al	.....	6	......	......	......	......	O	Sin	1176	.44	Ele
Mercedes-Benz OM-67	T, Tr, B	PC	6-4.13x5.51	443.9	100-2000	17.0	4	605-2000	782	89	14.8	278-1300	1477	VI	1.65-.472	1.65-.472	8A	45AB	45BB	8A	Al	.....	6	......	......	......	......	O	Sin	1248	.45	Ele
Mercedes-Benz OM-54	T, Tr, B	PC	6-4.92x6.69	762.5	150-1700	17.0	4	605-2000	782	92	14.5	477-1150	2183	VI	2.12-.472	2.12-.472	15B	35AB	45BB	5A	Al	.....	6	......	......	......	......	..	Sin	1248	.45	Ele
Mercedes-Benz OM-85	R	PC	12-5.43x6.69	1860.5	300-1500	17.0	4	569- 600	782	85	13.2	1302-1200	3968	VI	2.16-....	2.16-....	21B	56AB	34BB	1B	Al	6.77	7	6.17	......	......	......	C	Sin	1249	.43	Ele
Mercedes-Benz OM-86	R	PC	12-6 49x7.67	3052.1	450-1400	17.0	4	569- 600	782	83	13.7	2140-1000	6173	VI	1.93-.490	1.93-.490	21B	56AB	34BB	1B	Al	8.15	7	9.66	......	......	......	C	Sin	1249	.41	Ele
MWM GS113V	T. Tr, B, M. R	AC	4-4.05x5.11	264.3	55-2000	17.5	4	455-....	711	83	16.8	174-1200	926	VI	....	....	5B	133B	124A	12A	Ala	.....	..	......	Stl	......	......	C	Pin	1911	.43	A, E
MWM SS115V	T, Tr, B, M, R	AC	4-4.13x5.90	316.9	64-1800	17.5	4	455-....	711	89	17.5	195-1300	1124	VI	....	....	TC	145B	130A	10A	Ala	.....	..	......	Stl	......	......	C	Pin	1911	.43	A, E
MWM SS17V	T, Tr, B, M, R	AC	4-4.92x6.69	509.0	90-1600	17.5	4	455-....	711	88	18.6	302-1300	1675	VI	....	....	5B	140B	125A	10A	Ala	.....	..	......	Stl	......	......	C	Pin	1911	.43	A, E
MWM SS115S	T, Tr. B, M, R	AC	6-4.13x5.90	475.3	96-1800	17.5	4	455-....	711	89	16.1	289-1300	1543	VI	....	....	TC	145B	130A	10A	Ala	.....	..	......	Stl	......	......	C	Pin	1911	.43	A, E
MWM SS17S	T, Tr, B, M, R	AC	6-4.92x6.69	763.5	135-1600	17.5	4	455-....	711	87	17.1	488-1300	2315	VI	....	....	5B	140B	125A	10A	Ala	.....	..	......	Stl	......	......	C	Pin	1911	.43	A, E
Vomag 6RO-550	T, B, R	PC	6-4.13x5.90	469.7	95-1900	19.0	..	711-1900	782	84	17.4	289-....	1654	VI	1.69-.531	1.69-.531	......	......	......	......	Al	5.98	4	3.85	Stl	12.00	8.79	..	......	1029	.47	Ele
Vomag[18] 6R-1060	T, B, R	PC	6-4.52x6.30	607.5	120-1800	19.0	..	711-1800	782	87	15.6	332-....	1874	VI	1.85-.531	1.85-.531	......	......	......	......	Al	6.85	4	5.66	......	12.79	10.74	..	......	1029	.47	Ele
Vomag[18] 6R-3080	T, B, R	PC	6-5 12x7.08	874.1	140-1500	19.0	..	711-1500	782	85	17.7	505-....	2481	VI	2.24-.531	2.24-.531	......	......	......	......	Al	7.67	4	7.38	......	14.56	16.97	..	......	1029	.47	Ele
HUNGARIAN																																
Gans-Jendrassik JAR-135	R	PC	6-5.31x7.28	976.0	130-1400	13.0	4	469-....	597	75	24.6	694-1000	3197	VI	2.36-.630	1.97-.630	10B	35AB	55BB	5A	Ala	6.47	4	7.71	NS	14.56	17.64	O	Sin	2058	.40	Ele
Gans-Jendrassik[21] JAR-110	T B, M, R	PC	8-4.33x5.90	695.4	113-1650	13.0	4	469-....	597	78	15.8	477-1200	1786	Vi	1.81-.472	1.57-.472	10B	35AB	55BB	5A	Ala	5.47	4	4.19	NS	11.61	6.39	O	Sin	2058	.42	Ele
Gans-Jendrassik[23] ... JAR-170-240	M. R	PC	8-6.69x9.45	2659.6	340-1250	13.0	4	469-....	597	21	22.0	1837-.900	7496	....	3.07-.732	2.51-.732	10B	35AB	55BB	5A	Ala	7.87	4	14.99	NS	18.89	27.34	O	Sin	2058	.40	A, E
SCOTCH																																
Atlantic 4BE	M	AC	4-4¼x6	340.0	35-1000	15.0	4	450-1000	650	82	86.5	....	§3024	VI	1.62-.375	1.62-.375	......	......	......	......	Spec	5.25	5	2.50	Stl	11.50	9.87	C	Pin	1450	.44	Ele
Atlantic 4DE	M	AC	4-6x8	904.0	75- 800	15.5	4	450- 800	650	82	63.5	....	§4760	VI	2.37-.375	2.37-.375	......	......	......	......	Spec	7.25	6	7.06	Stl	15.37	17.12	C	Pin	1450	.44	Air

SWEDISH																																							
Bolinders (5)	DA2M-4	M	TC	4-4.33x4.72	278.0	45–1250	14.3	2	....	....	58	....	....	....	....	....	Two	Cycle	....	....	....	....	Ala	6.49	5	4.92	Stl	9.45	5.01	C	Pin	1470	.43	Ele
Nohab-Hesselman	BH6-165	M	DI	6–6.49x8.11	1610.4	210–1100	6.0	4	185–1100	398	94	22.0	1085– 700	§4630	VI	2.75–.866	2.44–.866	5B	135B	140A	10A	Ala	8.19	5	14.77	CN	16.22	19.85	C	Mul	4410	.46	Ele(x)
Nohab-Hesselman	BH6-165	R	DI	6–6.49x8.11	1610.4	240–1200	6.0	4	185–1100	398	98	15.6	1132– 800	3748	VI	2.75–.866	2.44–.866	5B	135B	140A	10A	Ala	8.19	4	14.77	CN	16.22	19.85	C	Mul	4410	.47	Ele(x)
Penta-Hesselman	HA-6	M	DI	6–3.50x4.33	250.7	48–2000	6.0	4	128–....	427	76	25.2	156–1000	1212	VI	1.33–.334	1.33–.334	TC	136B	134A	10A	Al	4.72	5	2.07	Bof	9.84	2.96	O	Mul	735	.61	Ele(x)
Penta-Hesselman	P-83	M, R	DI	6–4.52x5.67	547.5	120–2000	6.0	4	128–....	427	87	15.8	398–1100	§1896	VI	1.89–.512	1.72–.512	2B	135B	137A	10A	Al	6.10	3	5.07	Bof	11.81	6.39	O	Mul	735	.56	Ele(x)
Skandia	TYP-132-DLB	M	DI	2–5.12x7.48	229.9	25– 800	13.0	2	455– 800	711	54	86.5	116– 800	2160	....	Two	Cycle[16]	53B	53A	61B	62A	Cl	9.96	6	28.66	Stl	14.56	17.64	C	Mul	2940	.40	Air
Skandia	TYP-182-DHB	M	DI	2–7.08x9.84	571.2	50– 500	13.0	2	455– 500	711	69	110	521–....	5512	....	Two	Cycle[16]	54B	54A	62B	62A	Cl	18.03		83.79	Stl	23.62	66.15	C	Mul	2940	.40	Air
SWISS																																					
Saurer	CAD	C, T, B	DI	4–3.15x4.72	147.0	43–2500	18.0	4	540–2500	825	93	13.9	94–2000	595	VI	‡1.06–.315	‡1.06–.315	.....	.....	.....	.....	Ala	.....	5	2.29	NS	9.84	3.56	..	Spec	3675	.39	Ele
Saurer	CBD	C, T, B	DI	4–3.34x4.92	173.2	50–2500	18.0	4	540–2500	825	91	12.3	109–2000	617	VI	‡1.06–.315	‡1.06–.315	.....	.....	.....	.....	Ala	.....	5	2.43	NS	9.84	3.56	..	Spec	3675	.39	Ele
Saurer	CRD	T, B	DI	4–4.13x5.12	274.5	55–1800	16.0	4	484–1800	782	88	17.0	174–1250	937	VI	‡1.18–.390	‡1.18–.390	.....	.....	.....	.....	Ala	.....	5	4.85	NS	11.42	6.16	C	Mul	2720	.39	Ele
Saurer	CRID	T, B	DI	4–4.33x5.51	324.5	65–1800	16.0	4	484–1800	782	88	15.1	203–1250	981	VI	‡1.18–.390	‡1.18–.390	.....	.....	.....	.....	Ala	.....	5	4.85	NS	11.42	6.16	C	Mul	2720	.39	Ele
Saurer	BOD	T, M	DI	4–4.33x5.90	347.7	76–1800	15.3	4	462–1800	782	97	17.4	246–1100	1323	VI	‡1.18–.358	‡1.18–.358	.....	.....	.....	.....	Ala	.....	5	5.69	NS	13.39	9.90	C	Mul	2720	.39	Ele
Saurer	CCD	C, T, B	DI	6–3.15x4.72	220.8	72–3000	18.0	4	275–2500	782	86	10.4	137–2000	750	VI	‡1.06–.315	‡1.06–.315	.....	.....	.....	.....	Ala	.....	5	2.29	NS	9.84	3.56	..	Spec	3675	.39	Ele
Saurer	CDD	C, T, B	DI	6–3.35x4.92	259 8	85–3000	18.0	4	540–2500	825	86	9.1	159–2000	7726	VI	‡1.06–.315	‡1.06–.315	.....	.....	.....	.....	Ala	.....	5	2.42	NS	9.84	3.56	..	Spec	3675	.39	Ele
Saurer	CTD	T, B	DI	6–4.13x5.12	412.3	85–2000	16.0	4	484–1800	484	82	13.4	260–1250	1135	VI	‡1.18–.389	‡1.18–.389	.....	.....	.....	.....	Ala	.....	5	4.65	NS	11.41	6.16	C	Mul	2720	.38	Ele
Saurer	CTID	T, B	DI	6–4.33x5.51	486.8	105–2000	16.0	4	484–1800	484	85	11.2	289–1250	1179	VI	‡1.18–.389	‡1.18–.389	.....	.....	.....	.....	Ala	.....	5	4.85	NS	11.41	6.16	C	Mul	2720	.38	Ele
Saurer	BLD	T, B, M, R	DI	6–4.33x5.90	521.5	105–1800	15.3	4	462–1800	462	89	16.4	369–1100	1720	VI	‡1.18–.358	‡1.18–.358	.....	.....	.....	.....	Ala	.....	5	5.68	NS	13.38	9.89	C	Mul	2720	.38	Ele, A
Saurer	BUD	T, B, M, R	DI	6–4.72x6.69	703.9	140–1600	15.4	4	462–1600	782	99	16.5	499–1000	2315	VI	‡1.37–.452	‡1.37–.452	.....	.....	.....	.....	Ala	.....	5	6.37	NS	14.17	10.98	C	Mul	2720	.36	Ele
Saurer	BXD	M, R	DI	6–5.12x7.08	874.1	180–1500	15.2	4	455–1500	658	109	13.5	658–1000	2425	VI	‡1.49–.452	‡1.49–.452	.....	.....	.....	.....	Ala	.....	5	9.03	NS	14.17	12.94	C	Mul	2720	.36	Ele, A
Saurer	SAD	M, R	DI	6–5.90x7.87	1293.8	250–1500	15.2	4	455–1500	455	102	15.0	919–1000	3741	VI	‡1.81–.472	‡1.81–.472	.....	.....	.....	.....	Ala	.....	5	11.79	NS	16.53	15.43	C	Mul	2720	.36	Ele
Saurer	BZD	M, R	DI	12–5.11x7.08	1748.8	360–1500	15.2	4	455–1500	782	109	13.5	1316–1000	4850	VI	‡1.49–.452	‡1.49–.452	.....	.....	.....	.....	Ala	.....	5	9.03	NS	14.56	(m)	C	Mul	2720	.36	Ele, A
ITALIAN																																					
Fiat	324	T, B	TC	4–4.25x4.92	279.4	55–2200	17.3	4	484–2200	996	71	23.6	141–1500	1301	VI	1.81–.452	1.69–.452	10B	224A	224B	10A	Al	5.21	6	4.18	3435	11.22	6.83	C	Sin	1470	.46	Ele
Fiat	350C	T	DI	4–4.25x5.98	339.8	60–1800	13.7	4	455–....	1038	78	25.7	184–1000	1543	VI	1.85–.452	1.57–.413	8B	220A	240B	20A	Al	6.49	6	5.12	3435	12.52	7.17	C	Mul	2205	.43	Ele
Fiat	355C	T, B, R	DI	6–4.25x5.98	509.6	85–1700	13.5	4	398–1700	1038	78	23.1	268–1200	1962	VI	1.85–.452	1.57–.413	8B	220A	240B	20A	Al	6.49	6	5.12	3435	12.52	7.17	C	Mul	2205	.40	Ele
Fiat	356	B, R	PC	6–4.52x6.30	608.2	120–1800	17.6	4	498–....	996	87	17.5	354–1300	2094	VI	1.61–.488	1.61–.448	10B	224A	224B	10A	Al	6.85	6	5.84	3435	12.99	8.40	C	Sin	1470	.45	Ele
Fiat	357	R	PC	6–4.92x6.89	786.9	145–1700	17.1	4	484–1700	996	86	19.8	452–1300	2866	VI	1.92–.531	1.73–.531	5B	220A	225A	TC	Al	6.93	6	8.36	3435	14.88	15.43	C	Sin	1470	.43	Ele

ABBREVIATIONS

*—With spark ignition
**—Each
○—Others also
#—With aluminum pistons
†—Lower or primary piston
‡—With dual valves
§—Weight complete with reverse gear
[1]Also built as "L" head and valve in head types
[2]Also built in 1, 2, 3, and 4 cylinder models
[3]At 1500 R.P.M.
[4]At 1250 R.P.M.
[5]Also built in 1 and 2 cylinder models
Also built in 2 and 3 cylinder models
[7]At 1300 R.P.M. and 52 B.H.P.
At 1000 R.P.M. and 60.5 B.H.P.
[9]At 1200 R.P.M. and 86.5 B.H.P.
[10]Also built in 2 and 4 cylinder models
[11]Also built in 2, 3, 4, 5 and 6 cylinder models
[12]Also built in 4, 5, and 6 cylinder models
[13]Also built in 2, 3, 4, 5, 6 and 7 cylinder models
[14]Two pistons used per cylinder
[15]Also built in 3, 4 and 5 cylinder models
[16]Also built in 4, 5, 6 and 7 cylinder models
[17]Also built in 3, 4, 5, 6 and 7 cylinder models
[18]Also built in 2 cylinder models
[19]Transfer port data given
[20]Supercharged
[21]Also built in 4 and 6 cylinder models
[22]Also built in 6 cylinder model
A—After top center (timing)
A—Air (starting) A—Aircraft
AB—After bottom center (timing)
AC—Air chamber
A, E—Air or Electric
A, E, H—Air, electric or hand
Al—Aluminum
Ala—Aluminum alloy
Als—Aluminum with strut
AS—Alloy steel
B—Buses
B—Before top center (timing)
BB—Before bottom center (timing)
Bof—Bofors steel No. N-82
(c)—Primary 7.32—secondary 6.29
C—Cars
C—Closed
CAV-A—C.A.V. axial electric
Cav-Bos—C.A.V. Bosch
CI—Cast iron
CM—Chrome-Molybdenum
CN—Chrome-Nickel
CNM—Chrome, nickel, molybdenum
CS—Carbon steel
(d)—Primary 8.59—secondary 7.05
DA—Direct injection or air chamber
Dec—Deckel
DI—Direct injection
DT—Direct injection with turbulence chamber
(e)—Primary 24.96—secondary 11.22
E—Electric
Ele—Electric
(f)—Primary 9.48—secondary 3.31
FS—Forged steel
(g)—Weight with roller bearing
G—Gas engine
G-E—Gas engine or electric
(h)—One rod 11.22 long, one 24.96 long
H—Hand
H, E—Hand or electric
Hi—Horizontally—in head
I—Inertia
Ind—Industrial
(k)—Primary 16.3 lbs., secondary 10.2 lbs., roller bearing 5.3 lbs.
(m)—Primary 24.45 lbs.—secondary 13.47 lbs.
M—Marine
Mo—Monovalve (single valve used as both intake and exhaust)
Mul—Multiple
NCM—Nickel, chrome, molybdenum
Ni—Nickel iron
NS—Nickel steel
O—Open
ODL—Own gas engine or Delco Remy or Leece—Neville Electric
PC—Precombustion chamber
Per—Perlitic iron Pin—Pintle
PR—Paris-Rhone
R—Railcars
S—Special
SA—Silicon alloy
SAA—Special aluminum alloy
Sin—Single
SM—Siemens-Martin Steel
SMa—Silico, manganese
Spec—Special
Stl—Steel
T—Trucks
TC—Turbulence chamber
TC—Top Center—(Valve Timing)
Tr—Tractors
Vl—Vertically (in head)
x—For starting only, gasoline and spark ignition

Summary of American Diesel Engine Specifications

NINETEEN American manufacturers are represented this year in the table of specifications of automotive and other heavy-oil engines, as compared with 14 in last year's table. The number of models listed also has increased materially and they now range from 18 to 400 hp. Piston displacements range from 168 to 4231 cu. in. The table includes two types of engines, viz., compression-ignition and spark-ignition engines. In the former the compression ratios range between 11.8 and 17, while in the spark-ignition engine the ratio ranges between 5.4 and 7.5. Much higher compression ratios are used in the German engines (ranging up to 22). This is undoubtedly due to the fact that a good many German engines are designed to operate on coal-tar oils which have high self-ignition temperatures. The average valve timing of the American engines listed is as follows: Inlet opens 8 deg. ahead of top center and closes 39 deg. past bottom center; exhaust opens 42 deg. ahead of bottom center and closes 10 deg. past top center. Brake mean effective pressures range from 39 lb. in a two-stroke to 110 lb. per sq. in. in a four-stroke engine. Only seven out of a total of 82 models listed are two-stroke engines. Injection pressures range between 1000 and 2000 lb. per sq. in. for the most part, but go up as high as 7000 lb. per sq. in. in a few engines.

AMERICAN TWO CYCLE OUTBOARD MOTORS

MAKE AND MODEL	Power Head	No. of Cylinders	Bore and Stroke (Ins.)	Piston Displacement (Cu. Ins.)	N.O.A. Certified Brake HP.	R.P.M.	Weight (Lbs.)	Piston Rings No. and Size	Propeller Diameter and Pitch (Ins.)	Starting Device	Fuel Tank Capacity (Gals.)	Gear Ratio	Ignition System Type	Carburetor Make	Spark Plug Make and Model	Type of Exhaust	Cooling System
Bendix.....Eclipse	RV—2 Port	1	2 1/16x1 1/2	5.01	2.2	3000	27 3/4	3-3/32	7 1/2x5	Cord	.66	12-19	Magneto	Str.	Ch-H10	Underwater	Air
Elto[1].....Pal	CL—2 Port	1	1 3/16x1 3/8	2.00	0.9	3500	15	2-3/32	6x5	Cord	.22	13-20	Magneto	Own	Ch-J8	Underwater	Pump
Elto[1].....Ace	CL—2 Port	1	.....	3.75	1.4	3500	22 1/2	2-3/32	7x6	Cord	.43	13-20	Magneto	Own	Ch-JI-15	Underwater	Pump
Elto[1].....Handitwin	CL—2 Port	2	1 3/4x1 3/8	6.60	2.5	3500	29 1/2	2-3/32	7 1/2x6	Cord	.43	13-20	Magneto	Own	Ch	Underwater	Pump
Elto[1].....Service Twin	CL—2 Port	2	2x1 5/8	10.00	4.3	3500	43	2-1/8	7 1/2x8	Cord	.50	13-20	Bat. or Mag.	Own	Ch-M6	Underwater	Pump
Elto[1].....Handifour	RV—2 Port	4	1 3/4x1 25/64	15.00	9.2	4000	58	3-3/32	8 3/4x9	Cord	1.25	11-17	Magneto	Own	Ch-M5	Underwater	Pump
Elto[1].....Speeditwin	RV—2 Port	2	2 3/4x2 1/2	30.00	22.5	4000	105	2-1/8	11x11	Opt.	2.50	15-21	Bat. or Mag.	Own	Ch-M5	Underwater	Pump
Evinrude.....Midget Racer	RV—2 Port	2	1 3/4x1 25/64	7.50	.....	.....	37 1/2	3-3/32	6 3/4x8 1/2	Cord	.50	13-20	Magneto	Own	Ch-RI	Muffler	Pump
Evinrude..Racing Speeditwin	RV—2 Port	2	2 3/4x2 1/2	30.00	.....	.....	97	2-1/8	9 1/2x14	Cord	2.50	13-19	Battery	Vac.	Ch-RIIS	Muffler	Pump
Evinrude.....“460” Racer	RV—2 Port	2	2 3/4x2 1/2	60.00	.....	.....	140	2-1/8	10 1/2x18	Cord	4.00	13-19	Battery	Vac.	Ch-RIIS	Muffler	Pump
Evinrude.....Scout	CL—2 Port	1	.....	2.00	.9	3500	16	2-3/32	6x5	Cord	.22	13-20	Magneto	Own	Ch-J8	Underwater	Pump
Evinrude.....Sportsman	CL—2 Port	1	1 3/4x1 25/64	3.75	1.6	3500	25	2-3/32	7x6	Cord	.50	13-20	Magneto	Own	Ch-JI-15	Underwater	Pump
Evinrude.....Sportwin	CL—2 Port	2	1 3/4x1 5/8	6.60	2.5	3500	32	2-3/32	7 1/2x6	Cord	.75	13-20	Magneto	Own	Ch-C7	Underwater	Pump
Evinrude.....Fisherman	CL—2 Port	2	2x1 5/8	10.00	4.4	3500	46	2-1/8	7 1/2x8	Cord	.75	13-20	Magneto	Own	Ch-M6	Underwater	Pump
Evinrude.....Lightwin	CL—2 Port	2	2x1 5/8	10.00	4.7	3750	42	2-1/8	7 1/2x8	Cord	.75	13-20	Magneto	Own	Ch-M6	Underwater	Pump
Evinrude.....Lightfour	RV—2 Port	4	1 3/4x1 25/64	15.00	9.2	4000	59	3-3/32	8 3/4x9	CSp	1.25	11-17	Magneto	Own	Ch-M5	Underwater	Pump
Evinrude.....Sportfour	RV—2 Port	4	2x2	25.00	16.2	4000	90	2-1/8	10x10	Cord	2.00	13-19	Magneto	Own	Ch-M5	Underwater	Pump
Evinrude.....Sportfour	RV—2 Port	4	2x2	25.00	16.2	4000	124	2-1/8	10x10	Electric	2.00	13-19	Battery	Own	Ch-M5	Underwater	Pump
Evinrude.....Speedifour	RV—2 Port	4	2 1/2x2 1/2	50.00	33.4	4000	135	2-1/8	10 1/2x13	Cord	4.00	15-21	Magneto	Own	Ch-M5	Underwater	Pump
Evinrude.....Speedifour	RV—2 Port	4	2 1/2x2 1/2	50.00	33.4	4000	165	2-1/8	10 1/2x13	Electric	4.00	15-21	Battery	Own	Ch-M5	Underwater	Pump
Neptune[2].....OB-11A	NV—3 Port	1	2 1/16x1 1/2	5.00	.....	.....	31	3-1/8	7 1/2x5 1/8	Cord	.50	14-21	Magneto	Til	Ch-7	Underwater	Pump, Syphon
Neptune[2].....OB-16	NV—3 Port	2	2 1/2x2	19.63	.....	.....	93	2-	10x10	Cord	2.00	12-21	Magneto	.....	Ch-7	Underwater	Pump, Syphon
Neptune[2].....OB-64A	NV—3 Port	2	2 1/16x1 1/2	10.00	.....	.....	48	3-1/8	8x7	Cord	1.00	14-21	Magneto	Til	Ch-7	Underwater	Pump, Syphon
Neptune[2].....34A	NV—3 Port	2	2 1/16x1 1/2	10.00	.....	.....	42	3-1/8	8x7	Cord	1.00	14-21	Magneto	Til	Ch-7	Underwater	Pump, Syphon
Seahorse[3].....210	NV—3 Port	2	2x1 1/2	9.42	3.3	3000	.....	3-1/8	7 1/2x5 1/2	Cord	.87	14-19	Magneto	Own	Ch-C7	Underwater	Pres. Vacuum
Seahorse[3].....110	NV—3 Port	1	2x1 1/2	4.71	1.7	3300	.....	3-1/8	7 1/2x4 1/4	Cord	.50	14-19	Magneto	Own	Ch-J6	Underwater	Pres. Vacuum
Seahorse[3].....LS-37	NV—4 Port	1	1 7/8x1 1/2	4.14	2.1	4000	.....	2-1/8	8x4 3/4	Cord	3.28	14-25	Magneto	Own	Ch-J8	Underwater	Pump
Seahorse[3].....DS-37	NV—4 Port	1	1 7/8x1 1/2	4.14	2.1	4000	.....	2-1/8	8x4 3/4	RP	.50	14-25	Magneto	Own	Ch-J8	Underwater	Pump
Seahorse[3].....LT-37	NV—4 Port	2	1 7/8x1 1/2	8.28	4.2	4000	.....	2-1/8	8x7 1/2	Cord	.62	14-25	Magneto	Own	Ch-J8	Underwater	Pump
Seahorse[3].....DT-37	NV—4 Port	2	1 7/8x1 1/2	8.28	4.2	4000	.....	2-1/8	8x7 1/2	RP	.75	14-25	Magneto	Own	Ch-J8	Underwater	Pump
Seahorse[3].....AA-37	RV—2 Port	2	1 7/8x1 1/2	8.28	4.5	4000	.....	3-1/8	9 1/2x6	Cord	.87	14-24	Magneto	Own	Ch-5M	Underwater	Pres. Vacuum
Seahorse[3].....KA-37	RV—2 Port	2	2 1/8x1 31/32	13.90	9.3	4000	.....	3-1/8	9 1/2x9	Cord	1.82	14-24	Magneto	Own	Ch-R7	Underwater	Pres. Vacuum
Seahorse[3].....PO-37	RV—3 Port	2	2 3/4x2.52	29.90	22.0	4000	.....	3-1/8	12x13	Cord	2.50	12-21	Magneto	Vac	Ch-R7	Underwater	Pres. Vacuum
Seahorse, Racing[3].....KR-80	RV—2 Port	2	2 1/8x1 31/32	13.90	.....	.....	63 1/2	2-1/8	8x12	Cord	.87	12-19	Magneto	Own	Ch-R11	Muffler	Pres. Vacuum
Seahorse, Racing[3].....SR-80	RV—3 Port	2	2 3/8x2 1/4	19.90	.....	.....	113 1/2	2-1/8	9x12	Cord	2.50	13-19	Magneto	Own	Ch-R11	Muffler	Pres. Vacuum
Thor[4].....1937 Twin	NV—2 Port	2	2 5/16x1 5/8	.....	.....	.....	47	2-1/8	.....	Cord	.75	13-20	Magneto	Own	Own	Underwater	Pump
Thor[4].....1937 Single	NV—2 Port	1	2 5/16x1 5/8	.....	.....	.....	37 1/2	2-1/8	6 1/2x5 1/8	Cord	.50	13-20	Magneto	Own	Own	Underwater	Pump

Bat—Battery
Ch—Champion
CL—Clock Valve
CSp—Cord or Simplex
Mag—Magneto
NV—Valveless
Opt—Optional
Pres—Pressure
RP—“Ready Pull”
RV—Rotary Valve
Str—Stromberg
Til—Tillotson
Vac—Vacturi
[1]Evinrude Motors
[2]Muncie Gear Works
[3]Johnson Motors
[4]Cedarburg Mfg. Co.

American Passenger Car Engine Trends

(Based on Number of Models Offered)

Hp. per cu. in. of Displacement

1925	.233
1926	.236
1927	.256
1928	.276
1929	.306
1930	.331
1931	.344
1932	.353
1933	.376
1934	.388
1935	.398
1936	.411
1937	.417

Average Compression Ratio

1925	4.44
1926	4.47
1927	4.55
1928	4.86
1929	4.99
1930	5.15
1931	5.23
1932	5.29
1933	5.57
1934	5.72
1935	5.98
1936	6.14
1937	6.25

Average B.M.E.P.

At Maximum HP.

	Lb. per sq. in.
1927	74.5
1928	76.2
1929	80.6
1930	82.7
1931	84.3
1932	86.2
1933	88.5
1934	90.1
1935	90.2
1936	92.3
1937	93.1

Bore, Stroke, Displacement

	Bore (Inches)	Stroke (Inches)	Piston Displ. (Cu. In.)
1922	3.46	4.92	260.5
1923	3.43	4.81	257.3
1924	3.43	4.81	258.1
1925	3.46	4.73	262.6
1926	3.37	4.72	260.59
1927	3.26	4.67	254.86
1928	3.27	4.58	257.73
1929	3.27	4.57	261.27
1930	3.26	4.51	264.59
1931	3.21	4.45	273.00
1932	3.26	4.41	293.93
1933	3.23	4.40	294.07
1934	3.24	4.40	289.16
1935	3.23	4.39	271.40
1936	3.39	4.32	267.90
1937	3.25	4.31	277.6

Average Piston Speeds

	Feet per Min.
1927	2150
1928	2210
1929	2310
1930	2380
1931	2395
1932	2390
1933	2463
1934	2508
1935	2535
1936	2498
1937	2547

Displacement per Cylinder

	Cu. In.
1927	39.5
1928	39.1
1929	38.9
1930	37.6
1931	36.8
1932	36.7
1933	36.0
1934	36.2
1935	36.1
1936	35.6
1937	35.8

Average Number of Cylinders

1927	6.45
1928	6.59
1929	6.71
1930	7.04
1931	7.49
1932	7.78
1933	7.88
1934	7.97
1935	7.51
1936	7.50
1937	7.74

Average R.P.M.

1927	2740
1928	2860
1929	3063
1930	3170
1931	3230
1932	3250
1933	3360
1934	3420
1935	3480
1936	3487
1937	3556

Average Brake Horsepower

1927	65.8
1928	70.9
1929	81.6
1930	87.6
1931	95.0
1932	101.0
1933	106.5
1934	112.5
1935	109.6
1936	110.1
1937	115.9

Note: 1937 Trends derived from data on page 291.

The Statistical Issue

Active preparation of this issue of AUTOMOTIVE INDUSTRIES was handled by Marcus Ainsworth, chief statistician, and E. E. Osterhoff, assistant, of the editorial staff.

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Car Output Ahead of '36

Production Gain Over Last Year Expected To Reach 200,000 for the First Quarter

By Harold E. Gronseth

In spite of two months of troubled operations in 1937, the automobile industry already has a lead of about 90,000 units over its 1936 production for the corresponding period of last year, and by the end of the first quarter the gain should reach at least 200,000 units if there are no further important interruptions.

The good progress made by General Motors divisions in resuming volume output after the strike suggests the need for revising upward earlier estimates of the February total. It appears now that the industry's February production will approach 370,000 cars and trucks for a gain of 23 per cent over the corresponding month last year. If March expectations are realized, the first quarter will finish with an increase of 18 per cent over the initial quarter of 1936.

Any way you look at it, 550,000 units for March seems like a conservative estimate. The industry turned out 519,132 vehicles in December despite various interruptions by labor troubles affecting suppliers. Some plants lost more than one day at the time of the Christmas holiday. But ignoring that and averaging the output over the 22 working days in the month, December showed a daily average of 23,597 units. March has one more working day, so that with no increase over the December rate of output the March total would come to approximately 543,000 units. With the spring selling season at hand, with field stocks lower than a year ago and retail demand running higher, there is every reason to push production up to the limit of capacity. The March forecast is moreover supported by the schedules of leading producers.

The industry built 1,117,172 vehicles in the first quarter of 1936. This year the total will come close to 1,320,000 units in the first three months. As forecast in this column, the January production was close to 400,000 units. Recently released Department of Commerce figures showed a January total of 399,426 cars and trucks, which com-

(Turn to page 358, please)

Chrysler Agrees to UAW Parley

Request for Conference Promptly Accepted; Union Expected to Demand Sole Bargaining Right

Chrysler Corp. promptly complied with the request of United Automobile Workers union officials for a collective bargaining conference, tentatively setting Wednesday next as the date for the first meeting. W. P. Chrysler's brief reply to Richard T. Frankensteen's wire suggested he "communicate with Weckler and Colbert who will speak for the corporation." Herman L. Weckler is vice-president and general manager of the DeSoto division and Lester L. Colbert is chief attorney for the corporation in Detroit.

Union demands will be drawn up after week-end caucuses have been held in Chrysler plants to formulate the program, according to Frankensteen. Union recognition and exclusive bargaining privileges probably will head the list of demands since Frankensteen has already said that wages are not an issue. The corporation employs approximately 75,000 workers, of which 50,000 are considered production employes. Besides the six plants in Detroit and Windsor, there is a Plymouth plant in Evansville, Ind., a Dodge plant in Newcastle, Ind., and an assembly plant for all divisions in Los Angeles.

Announcement of the formal demand made on Chrysler was made by Richard T. Frankensteen, organization director of the UAW, at a "victory jubilee" in the State Fair Grounds Coliseum in Detroit, Feb. 21.

The union president, Homer Martin, afterward explained that the union was not asking for a closed shop in Chrysler plants but only for recognition as the sole bargaining agency. Frankensteen said that wages were not an issue and that he did not think it would be necessary to call a strike. He pointed out that recent bargaining agency elections showed that the union had a majority in the Chrysler plants.

The "victory jubilee" to celebrate settlement of the General Motors strike was preceded by a mammoth parade including floats, bands and delegations from other cities. Approximately 5000 persons attended the meeting which was thrown into confusion at the outset by tear gas bombs planted near ventilating fans which sent the fumes through the building. A near-riot developed when a group of men and women attacked an amateur photographer, suspected of throwing gas bombs but who turned out to be a fellow worker from the Dodge plant.

Large Truckers Lead

Highway Transport Dominated by A Few Big Companies

The trucking business of the United States is concentrated in the hands of a few large companies, it was shown by the report of the Bureau of the Census released this week. The figures, a part of the business census of 1935, show that 1½ per cent of the 61,216 concerns engaged in motor trucking received nearly one-half of the $500,000,000 total gross trucking revenue. One-fifth of 1 per cent of the operators received 16 per cent of this total.

Approximately one-third of the companies received an income of less than $1,000 per year and 27.4 per cent

(Turn to page 346, please)

GM-UAW Talks

St. Louis Sitdown, Other Minor Issues Smoothed Out

Although untoward incidents disturbed negotiators on the third day of collective bargaining between General Motors and United Automobile Workers representatives, conferences continued amicably with both sides reporting progress at the end of the first week. An unauthorized sitdown strike halted production at the Chevrolet and Fisher Body plants in St. Louis Feb. 18, three days after the collective bargaining conferences started. The strike, which lasted only three hours, was caused by

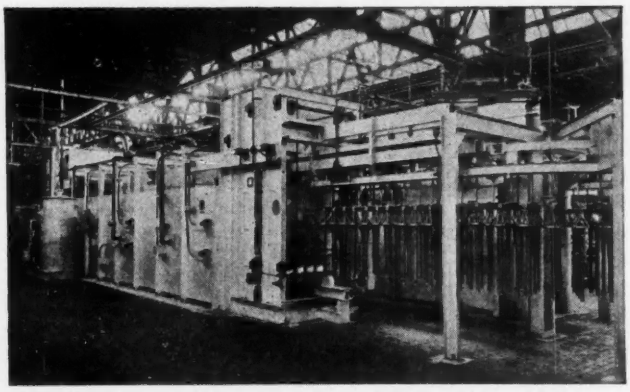
(Turn to page 350, please)

Foreign Cars

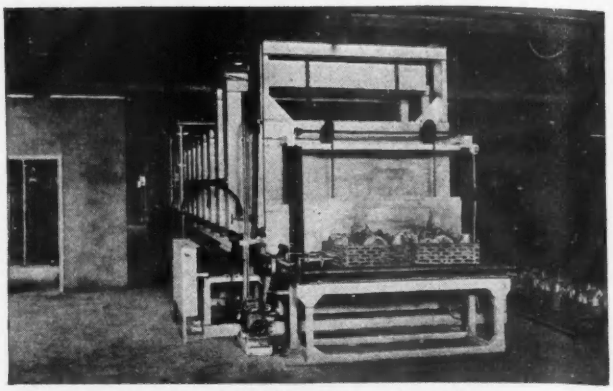
Due to lack of available space, specifications of foreign passenger cars which usually appear in the statistical issue of AUTOMOTIVE INDUSTRIES will appear in connection with our report of the Berlin Automobile Show, to appear in a subsequent issue.

Production

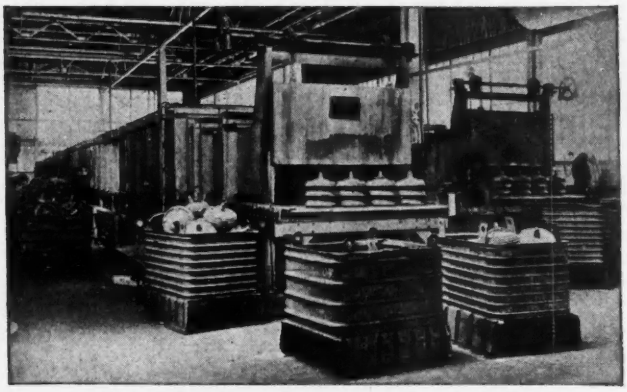
Electric, Oil and Gas Fired Furnaces for the Automotive Industry



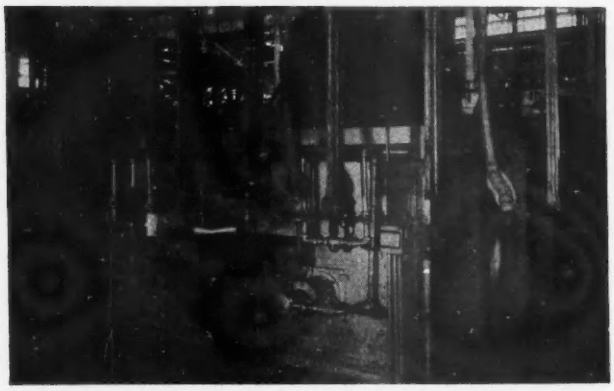
Scale-Free Hardening Axles—A completely automatic heating, quenching and drawing installation for scale-free heat treating rear axles.



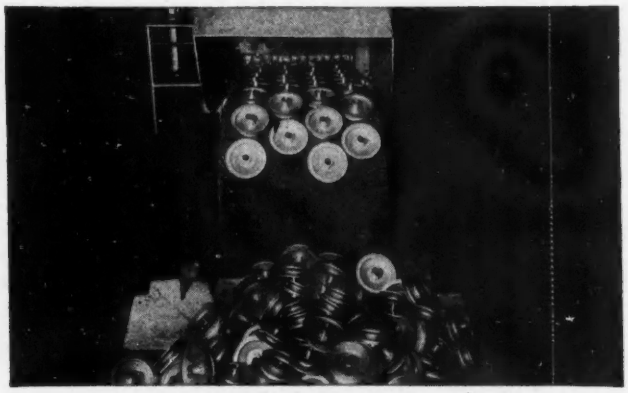
Short Cycle Malleable—A continuous, special atmosphere furnace for scale-free annealing short cycle malleable castings.



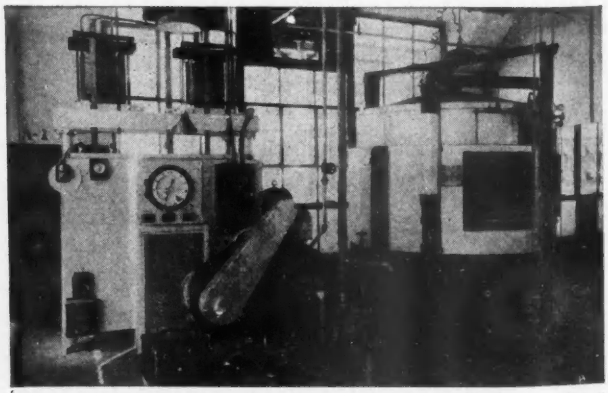
Annealing Brake Drums—Two oil fired, roller hearth type furnaces annealing brake drums—continuously.



Forging Front Axles—Gas fired, continuous conveyor type furnace—heats both ends of bar stock simultaneously, for forging.



Copper Brazing Fan Pulleys—Miscellaneous automotive parts are securely joined, neatly, economically and continuously, in furnaces of the above type.



Hardening Small Springs—Miscellaneous small and medium size springs and other parts are uniformly and economically treated in these rotary, pan dumping type furnaces.

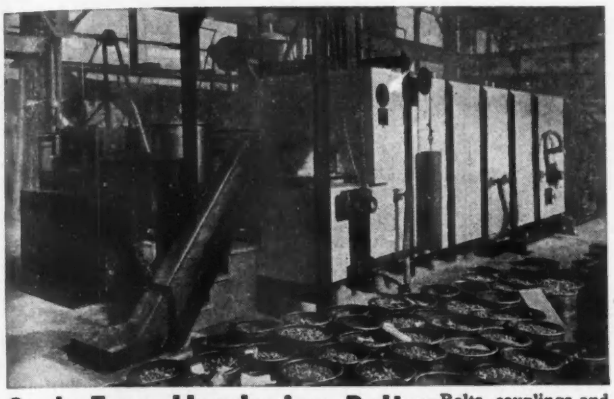
Designed and Built by

The Electric

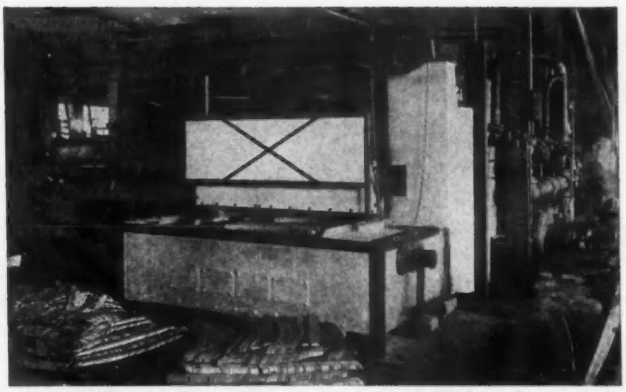
Designers and Builders of Electric and Fuel Fired Furnaces

Furnaces

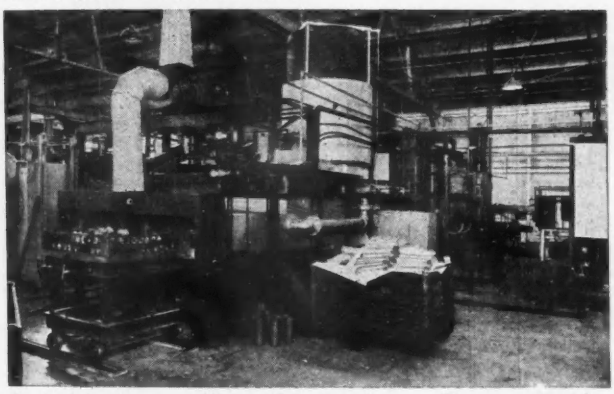
For the Uniform, Economical Production Treatment of Miscellaneous Parts



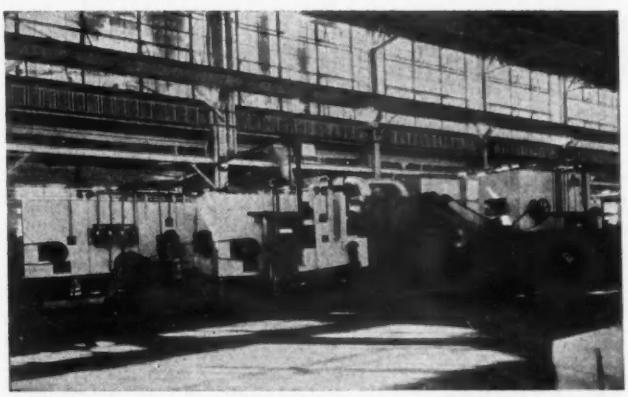
Scale-Free Hardening Bolts—Bolts, couplings and other threaded and finished products are being hardened absolutely scale-free in our continuous, special atmosphere furnaces.



Heat Treating Springs—An oil fired, continuous chain conveyor type furnace for heating spring leaves or plates for hardening.

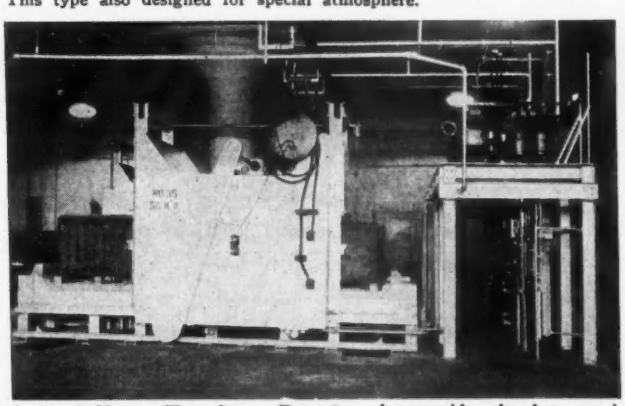


Bright Annealing Stampings—Ferrous and non-ferrous stampings are clean and bright annealed continuously in several types of special atmosphere furnaces we have built for this purpose.



Heat Treating Small Parts—Completely automatic installation consisting of heating, quenching, washing and drawing equipment for small parts. This type also designed for special atmosphere.

Hardening Bearing Parts—Interior of one of our continuous, chain belt conveyor type furnaces hardening bearing parts—no pans used—100% net material.



Nitriding Engine Parts—A movable chamber, semi-continuous type furnace for the uniform, low cost, production nitriding of miscellaneous parts.

Furnace Co. Salem Ohio

Furnaces for Every Industrial Heating and Heat Treating Process

Toledo Flat Glass Workers Oust McCabe as President

Henry Baum, Toledo, has become acting president of the Federation of Flat Glass Workers, succeeding Glen W. McCabe, who has been suspended by the executive board of the union. McCabe has appealed to the membership and ballots are now being mailed out for a referendum on the suspension. The union claims a membership of 17,000 in several states. Its headquarters are at Columbus.

Some of the troubles which have been aired in the executive board sessions grew out of the recent strikes in plants of the Pittsburgh Plate Glass Co. and the Libbey-Owens-Ford Glass Co. The suspension was said to have been based on a charge that McCabe had appropriated for his own use funds of the *Flat Glass Worker*, a monthly magazine labeled "official organ" of the federation. "The facts are the magazine belongs to me," said McCabe. "I published it with my own personal funds and never spent any union money on it. I would be entitled to the profits but it is in the red."

McCabe has been a close associate of John L. Lewis, who was advised of the flat glass union action, and declared for a "hands-off" policy. McCabe, a glass cutter, founded the union in 1934 and took it into the CIO organization. Clarksburg, W. Va., members have voted to support McCabe but the large Toledo local almost unanimously voted to support the executive board.

Finance Code Suggested

Chicago Better Business Bureau Finds Wisconsin Law Effective

Suggestions as to ways and means for putting an end to automobile financing complaints have been recommended by the Chicago Better Business Bureau. The bureau suggests that the seller furnish the buyer with a written statement describing clearly the following essentials:

1. The motor vehicle sold to the buyer.
2. The cash sale price.
3. The cash paid down.
4. The amount credited to the buyer for any trade-in and a description thereof.
5. The amount of finance charge.
6. The amount of any other charge, specifying its purpose.
7. The net balance due from the buyer.
8. The terms of payment of such net balance.
9. A summary of insurance to be effected and its cost.

The bureau calls attention to the fact that these points are embodied in the Wisconsin law effective since Jan. 1, 1936, as the "duties of the motor vehicle salesmen and dealers."

Auto-Lite Employes Get Wage Increases

Wage increases were granted to employes of the Electric Auto-Lite Co. on hourly wage basis in a new 1937 contract with the United Automobile Workers union. The contract was approved by vote of the union Feb. 21 when presented to a mass meeting in Memorial Hall in Toledo after several weeks' negotiations.

Details were not made public by either the union or the company, but it is understood that the boost ranged from 6 to 8 cents an hour for about 1800 of the 5000 employes of the company.

Large Truckers Lead

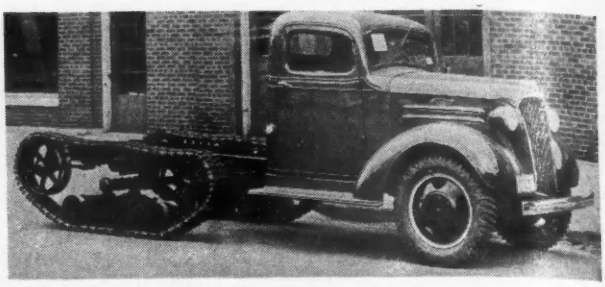
(Continued from page 343)

earned less than $2,000 per year. Eighty-one per cent had incomes of less than $5,000 during the year.

There were 904 large companies which reported incomes of $100,000 or more during 1935. While only 1½ per cent of the total number of truckers, these companies operated 29.5 per cent of all the trucks and paid out 52.5 per cent of the annual payroll. They also accounted for more than 50 per cent of the other expenses reported by the trucking business.

Half-Track Unit

Driving Conversion for All Standard Models



Cunningham half-track driving unit applied to a 1½-ton Chevrolet truck.

A half-track driving unit which is adaptable to all standard 1½-ton trucks has been developed by James Cunningham, Son & Co., Rochester, N. Y. Originally designed for military purposes, the conversion unit is now being offered for commercial use where hauling must be done over unimproved roads and across country.

Conversion of a standard truck to a half-track vehicle is made as follows: Rear springs, spring brackets and propeller shaft are removed from the chassis, and the rear axle is bolted to the underside of the frame in a position about 36 in. ahead of its original place. The propeller shaft, shortened to conform with the new position of the rear axle, is installed, and sprockets are secured to the hubs in place of the wheels. A 3-in. shaft, which carries the weight of the rear of the truck and most of the load, is bolted by means of side brackets to the underside of the frame at the original location of the rear axle.

Spring brackets, so arranged that they can oscillate, are carried on this shaft. Semi-elliptic springs, attached to the brackets, transfer the load to two pairs of bogies on each side of the truck. The bogies are free to oscillate independently at the end of the springs.

Attached to each end of the bogies are 10-in. rollers which run over a patented rubber-cushioned track. At the rear end of the truck, the track passes over a 20-in. idler wheel whose position can be readily adjusted to compensate for wear in the track joints. A slack take-up roller is mounted on the underside of the upper portion of the track to inhibit any tendency of the track to whip.

Brake drums and brakes furnished with the standard truck are retained on the rear axle and are so coupled that application of the pedal operates both front and rear brakes. Two hand brakes are also provided; each of these applies the brake on one of the sprocket shafts, so that, should the front wheels be in a rut, in snow or mud, the right or left hand brake can be applied and the vehicle steered by being driven by one track only.

Each track has a length of ground contact of 40 in. Ground pressures are approximately 7 lb. per sq. in. with the truck empty and 10½ lb. per sq. in. with full load.

New Grumman Plant on L. I.

Construction of a new plant for the manufacture and development of naval and commercial aircraft is nearing completion on a 120-acre site at Bethpage, Long Island, for the Grumman Aircraft Engineering Corp. It includes a manufacturing building 180 ft. by 400 ft., a hangar 100 ft. square, and a two-story office building, all connecting.

Production of the company's newly developed twin motor-amphibian, as well as the manufacture of six different types of naval aircraft, will be transferred to the new plant this spring.

The growth of industry and the development of new products have brought pressing needs for tools of character. Cincinnati Shapers have played their part successfully for well-known companies all over the world. They have given to all a service beyond their hopes. They will serve you equally well.

THE CINCINNATI SHAPER COMPANY, CINCINNATI, OHIO

GM-UAW Talks

(Continued from page 343)

supposed grievances and was precipitated by alleged beating of two union members by non-union men. The corporation explained that because of lack of parts in St. Louis trucks were being made before passenger cars and some of the employes believed they were being discriminated against when they were not called back.

A one-day strike developed at the corporation's plant in Oshawa, Ont., with workers contending that production had been speeded up after a recent wage increase. The strike was settled when employes agreed to give the new schedule a two-weeks' trial and then if dissatisfied the company would reopen negotiations.

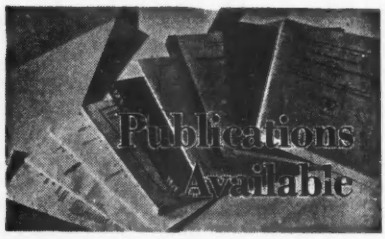
Union members also were charged with slowing down the line at Janesville, Wis., and not cooperating on getting back into production, and with soliciting UAW members on company property in violation of strike settlement terms.

On the other hand, union representatives brought to the conference complaints of discrimination against union members and charges that regularly employed workers were being enlisted as plant guards and armed with night sticks. But all protests were ironed out and the collective bargaining negotiations continued uninterrupted.

Conferees wrestled with the problem of seniority as the parley entered its second week. The union was holding out for straight seniority without giving preference to married men which the corporation demands. An agreement has been reached with respect to employes listed as key men, and the two sides are reported to be getting closer together. No announcements are being made of the various steps in the negotiations, both sides having agreed to withhold statements until complete agreement is reached. It is understood, however, that a tentative plan has been decided upon for handling union grievances.

Neither W. S. Knudsen nor Homer Martin have attended recent bargaining sessions. The union has been represented by Wyndham Mortimer, Ed Hall and John Brophy. C. E. Wilson, continues to head the delegation for GM, assisted by Harry W. Anderson, director of industrial relations and a third member who is not always the same man.

While details were not disclosed, tentative agreement has been reached in the GM bargaining conference on the problem of seniority with which negotiators have struggled for a week. It is understood that seniority is to be on a departmental basis except for certain types of work. The next points taken up by the conference were speed-up and piecework.



"Strength Plus" is the title of a brochure recently published by the International Nickel Co., New York City. The technical appendix gives graphical and tabular data on Monel, K-Monel and other high-strength **Monel alloys.***

A new **recording round-chart potentiometer**, made by the Bristol Co., Waterbury, Conn., is described in a bulletin recently brought out by that company.*

Materials handling equipment is described in a folder just issued by Lewis-Shepard Co., Watertown, Mass.*

The Hobart Brothers Co., Troy, Ohio, has prepared an attractive catalog describing its **"simplified" electric arc welding equipment.***

United States Rubber Products, Inc., New York City, has issued a 112-page manual on **industrial packings.** A 12-page engineering section is devoted exclusively to charts listing specific gravities, temperatures of steam at different pressures, Fahrenheit-Centigrade conversion table, metric conversion table, melting points of materials and their weights, and other useful data.

Marking the 75th anniversary of its establishment, the **Custom House Guide** for 1937 has just been issued. It is the largest and most elaborate edition yet published and includes the new rates of duty established under the 15 reciprocal trade agreements which have been concluded between the U. S. and foreign nations as well as the many tariff revisions enacted by Congress. Published by the Custom House Guide, Box 7, Sta. P, Custom House, New York. Price $15.00.

* Obtainable from editorial department, AUTOMOTIVE INDUSTRIES. Address Chestnut and 56th Sts., Philadelphia.

Automotive Bankruptcies At New Low Point in '36

Failures of automotive firms continued to decrease during 1936, according to Dun & Bradstreet, Inc. Of the 13 applications filed by firms in this industry for financial reorganization under the provisions of 77-B of the new Bankruptcy Act during the past year, only three were in the manufacturers' group. These were one-half the six recorded the previous year and compared with five in 1934.

For both manufacturers, and wholesalers and retailers the bankruptcies recorded in 1936 represented a new all-time low. The defaulted indebtedness declined from the previous low of $5,184,000 in 1935 to $4,243,000 in 1936.

The complete insolvency record for the automobile industry from 1930 to 1936 inclusive, as compiled by Dun & Bradstreet, Inc., follows:

Manufacturers

(Automobiles, Automobile Supplies and Accessories)

Year	Number	Liabilities
1930	196	$5,410,562
1931	114	2,832,260
1932	89	10,984,786
1933	62	3,105,964
1934	36	3,404,000
1935	36	1,172,000
1936	26	761,000

Wholesalers and Retailers

(Automobiles, Automobile Supplies and Accessories)

Year	Number	Liabilities
1930	1,155	$23,733,170
1931	824	15,895,764
1932	948	28,472,159
1933	512	12,033,716
1934	256	6,362,000
1935	244	4,012,000
1936	228	3,482,000

These statistics of commercial failures are exclusive of applications under Section 77-B. From June 7, 1934, when Section 77-B of the new Bankruptcy Act became effective, to Dec. 31, 1936, applications were filed under this section by 14 manufacturers in this industry and by 32 wholesalers and retailers.

Sitdown Halts Production In Douglas Aircraft Plant

The sitdown strike epidemic struck the Pacific Coast this week and the Douglas aircraft plant at Santa Monica was closed when about 500 of its 5600 employes started a demonstration. Strike leaders said the sitdown had been ordered by the Aircraft Division of the United Automobile Workers union.

The strikers demand wage increases of from 15 to 25 cents an hour; recognition of the union; straight seniority; and reinstatement of two employes dismissed, it is alleged, because of union activities.

AMA Votes to Continue Expanded Safety Program

Members of the Automobile Manufacturers Association on Feb. 25 voted a continuation with parts, accessory, and tire manufacturers and finance and discount companies of the expanded automotive safety program launched last year, Alvan Macauley, president, announced following a meeting of the association.

Definite gains under the automotive industry's plan were reported by Paul G. Hoffman, chairman of the safety traffic committee of the association.

"A more definite gain may have been registered than was anticipated when the National Safety Council reported its preliminary estimate for 1936," he stated. "While indicating a fatality increase of some four per cent, the council's 1936 figures were based on the U. S. Census Bureau estimate for 1935. Since that time, final census figures for 1935 indicate a decrease from their first estimate, so the final 1936 figures are expected to fall sharply below the council's early estimate.

Nash Kelvinator Directors

The following directors were elected by stockholders of Nash Kelvinator Corp. at the annual meeting Feb. 25: C. W. Nash, J. T. Wilson, George W. Mason, P. J. Ebbott, H. J. Perkins, E. W. Stauffen and H. T. Pierpont. The first two are former members of the Nash board while the other five are former Kelvinator directors. Former Nash directors dropped are: Fred Sargent, Sewell Avery, C. H. Bliss, Emory W. Clark, Robert F. Herrick and Harold Seaman.

Jap Tariff Increase

Drastic Revision of Import Duties Proposed for Cars, Parts

The tariff revision committee of the Japanese Ministry of Finance has unanimously adopted a draft providing for an upward revision on an unprecedentedly large scale of import duty rates on a number of articles, including automobiles, engines, parts, and accessories. It has not yet been decided when the new tariff will be enforced.

A duty of 70 per cent ad valorem will be levied on complete motor vehicles, instead of the 50 per cent rate now in force. Chassis having a wheelbase not exceeding 250 cm. will carry an import duty of 154.15 yen per 100 kin (132 lb.). The present rate is 42 per cent ad valorem. This is, when applied to the Austin and similar imported small cars, the equivalent of a duty increase of 80 per cent. Larger chassis, for which the old rate is also 42 per cent, will pay 44.42 yen per 132 lb. Wheel frames, wheels and front and rear springs are now 14.17 yen per 100 kin; engine covers, oil tanks, foot-boards and bumpers, 24.61 yen; front-axles, mufflers and rims, 30.26 yen; rear-axles, molded body iron sheets, front and rear doors, 41.30 yen; gear shift devices, steering wheels, steering wheel gears and instrument dash boards, 63.99 yen; universal joints and shock absorbers, 86.08 yen; differential gears, 92.92 yen; gears, 138.30 yen; all other parts, 60 per cent ad valorem instead of 42 per cent, which is also the old rate on all of the above items.

The new rate for automobile engines is 48 yen per 100 kin, instead of 35 per cent ad valorem. On the new weight basis, imports of Diesel engines will become difficult. Airplane engines will pay 24 yen per 100 kin.

Motorcycles receive the most drastic increase, from 126.36 yen each, to 460 yen.

Another government measure which is likely to affect Japan's import trade in motor-cars and parts, is the new Exchange Control Ordinance, which is tantamount to a virtual import license system. The foreign exchange transactions for settling the imported goods' accounts and acquiring letters of credit therefor are now subject to government permission. Exceptions are made where transactions within a month amount to 30,000 yen or less.

Those who imported goods valued at 500,000 yen or more during 1936 are required to submit reports to the government, showing the "actual results" of settlements of imported goods' accounts during 1935 and 1936. The "actual-results" clause aims at checking speculative buying abroad by comparing the figures of the prospective transactions with those of 1935 and 1936.

Since their quotas are already limited under the provisions of the Automobile Industry Control Law, Japanese assembly plants of American manufacturers can hardly indulge in speculative imports, though "speculative imports" of the British Ford and the German GM-Opel, which have been resorted to lately on account of the acute car shortage, may be checked.

German Factories Unite To Build Low-Priced Car

Responding to the desire of the government for a "popular" automobile along the lines of the low-priced radio placed on the German market two years ago, the German automotive industry will soon introduce a passenger car retailing for about $400, according to a report to the Commerce Department.

The new automobile will be manufactured in all motor vehicle plants in Germany, the report states, and except for some difference in appearance they will all be exactly alike. The proposed "popular" machine will be a four-seater, and powered by a 25 to 30-hp. four-stroke motor with about 91.53 cu. in. capacity. The car is designed for a maximum speed of about 55 m.p.h., it was stated.

While much secrecy has surrounded plans for the "popular" car, it is believed in some German trade circles that it will not come into competition

with standard size automobiles produced in or imported into the country, but may compete with the three-wheel motor vehicles and the larger motor cycles. The cheapest automobile now available in Germany is the light weight General Motors' Opel, which sells at $580, according to the report.

6% of Income for Cars

This Share of U. S. Spending Seems to Be Top Limit, Says Ayres

Almost 6 per cent of their aggregate income in good years is spent by the American people on new motor vehicles but they will not go much above that figure, is the conclusion reached by Milan V. Ayres, analyst of the National Association of Sales Finance Companies, in an interesting study published in the February, 1937, issue of *Time-Sales Financing*.

That there is a relation between national income and cars sold and between the average price of cars and the number sold, seemed obvious to Mr. Ayres. From figures compiled to cover the period from 1921 to 1936 such relationships were clearly shown. During this period prices decreased rapidly from 1921 to 1923, increased to 1927 due to the shift to closed bodies, then declined until 1933 and since then have tended to rise slightly.

Comparing the total retail value of new motor vehicles with the national income, Mr. Ayres found that in years of normal prosperity, such as from 1924 to 1929, and since 1935, the proportion of national income spent for automobiles ranged from 4.83 to 6.04 per cent. The lower figure was registered in 1927 when the Ford plant was closed for model changes. In depression years, the ratio fell considerably, having been 3.40 per cent in 1921; 4.57 in 1922, and from 1930 to 1934 ranging from 2.29 to 4.14 per cent.

If the national income for 1937 rises, say 10 per cent above that of 1936, automobile production for domestic use will probably increase in about the same proportion, provided automobile prices do not change materially, concludes Mr. Ayres.

American Industrialists to Visit European Laboratories

American industrialists will have an opportunity to observe developments in European automobile research this summer during a unique tour of scientific laboratories being arranged by the National Research Council's division of engineering and industrial research. About 100 prominent bankers and industrial men, including leaders in the automobile industry, are expected to participate in the tour which will enable them to visit such laboratories as the Laboratoire Citroen in France, the Krupp Laboratories in Germany, and the Brown-Firth Laboratories in England.

Research laboratories of 18 major fields of industry will be visited in England, France and Germany, besides those of trade associations, governments, and universities. In addition, accommodations will be made on the request of any member of the tour for special side trips to industrial laboratories not included in the general plans.

The group will sail May 14 from New York on the S.S. Champlain, according to present plans.

Perry H. Williams

Perry H. Williams, 72, owner of the Dixie Machine and Specialty Co. and resident of Memphis, Tenn., for 50 years, died Feb. 12. He organized the old Union Iron Works and was one of the early manufacturers of special gasoline engines for small river boats and later for automotive lines.

Emerson P. Harris

Emerson P. Harris, retired publisher of trade journals, died at his home in Franklinville, N. Y., Feb. 17. He was 83 years old. Mr. Harris began his business career in 1873 and in 1878 became a writer and representative of engineering journals. Among the publications at one time owned by Mr. Harris was *The Automobile*, which in 1919 became AUTOMOTIVE INDUSTRIES.

Detroit Strike Wave

Sitdowns Continue, but Few Automotive Concerns Affected

A wave of sitdown strikes swept over Detroit in the wake of the General Motors strike settlement. In one instance the boss "sat down," insisting on dealing directly with his employes rather than through union representatives. Walter L. Fry, president of Fry Products Co., manufacturers of automobile seat covers, held forth in his office while 153 employes remained idle in the plant. "If they can sit, so can I," said Fry who provided strikers with dinner one evening while he continued to wait for formal presentation of demands by the workers themselves.

The "boss sitdown" strike ended when Alfred R. Glancy, former president of the Oakland Motor Car Co. and former General Motors vice-president, offered his services as mediator and was successful in effecting a settlement. Terms were not disclosed but it is understood an agreement was reached as to minimum wages, overtime, maximum hours and a promise of no discrimination against UAW members. Striking workers cleaned out the plant and went home. Mr. Fry also went home to celebrate a wedding anniversary. The next day employes were again busy in the plant while Mr. Fry resumed his work as president and chief salesman of the company.

In all, a score of plants representing various industries in Detroit were affected by sitdown strikes. Only four of these were automobile parts suppliers. Five were cigar and tobacco companies. The list included a hospital laundry and a welfare station. In the latter case, the sitters were welfare recipients who protested removal from relief rolls.

Many of the strikes were short-lived. There were also instances where strikes were averted by wage increases as result of conferences between management and workers' representatives. The Herrow-Zimmers Moulding Co. announced a raise of five cents an hour for its 400 employes after a conference in which employes were represented by the UAW. A minimum of 65 cents an hour for men and 55 cents for women was established. A general increase of five cents an hour was given the 5000 employes of Kelsey-Hayes Wheel Co. after negotiations with the UAW. Raises of two and three cents will be given immediately in various departments and the balance will be paid at the end of two months. Time and a half will be paid for work in excess of 40 hours a week.

The first signed agreement giving sole bargaining rights to the UAW was granted by the Thompson Products, Inc., Detroit plant, according to union organizer Richard T. Frankensteen. A sitdown strike was started by less than 100 workers on the night shift Feb. 20. There are about 900 workers on the day shift. Settlement of the strike was effected the next day.

Agreement included, besides sole bargaining rights to the UAW for six months, substitution of straight hourly rates for bonus system; no discrimination against union members; straight seniority rating; guarantee of two hours pay if no work is available for employes recalled; agreement on shop rules; negotiations to start on demands for 75 cents an hour minimum; time and a half for overtime in excess of eight hours a day or 40 hours a week and double time for Sundays and holidays; and pledge by union to instruct members not to intimidate non-union workers.

An agreement to negotiate ended a brief sitdown strike involving between 150 and 200 men and women employes of the L. A. Young Spring & Wire Co. The strike which was begun Feb. 18 ended the next day and negotiations were started Monday. Agreement reached on Tuesday involved pay increases amounting to $500,000 annually. Other provisions, according to the union, were establishment of 65 cents an hour minimum rate with automatic increases to 70 cents after 30 days and 75 cents after six months for men; a minimum of 55 cents for women with automatic increases to 60 and 67 cents; eight-hour day and 44-hour week; time and a half for overtime; double time on Sundays

and holidays; recognition of union to extent of members and any who desire to be represented by it; straight seniority; minimum of two hours pay for employes who report and find no work; abolition of piece work by June 1; two ten-minute rest periods daily for women; and a joint committee to pass on discharge cases.

Two brief sitdown strikes at Briggs Manufacturing Co. and one at Budd Wheel were disposed of promptly after conferences with the respective managements.

Auto-Lite Profits Up

Nets $3.51 per Share; Earnings Rise for Other Companies

Net earnings of the Electric Auto-Lite Co., now operating twenty plants, were $4,196,768 in 1936 or equal to $3.51 a share on 1,194,979 shares of common stock. In 1935 the earnings were $2.20 a share and in 1934 aggregated 78 cents.

Dividend of 60 cents a share payable April 1 to holders of record March 18 was declared. Preferred stock has been called April 1 at which time $111.75 a share will be paid. This is the call price of $110 plus quarterly dividend of $1.75. Less than half of the proceeds of the recently floated $1,000,000 four per cent debentures of 1952 is required for the retirement of the preferred stock. The balance will be used to retire bank loans and provide added working capital.

Caterpillar Tractor Co. reports net profit for the 12 months ending Jan. 31, 1937, of $10,106,349 which compares with $6,125,483 for the same period a year ago. Net sales for the 12 months totaled $55,575,165 against $37,450,845 the year before.

Muskegon Piston Ring Co. in the year ended Dec., 1936, had a net profit of $339,802 and including earnings of Muskegon Co. for the same period, of $385,475.

Reynolds Spring Co.'s net profit for the year 1936 was $612,318 after excess profit tax and $60,710 provision for Federal surtax on undistributed profits. This compares with a net profit of $394,839 in 1935.

Campbell, Wyant and Cannon Foundry Co. and subsidiaries report a net profit, after Federal surtax on undistributed earnings, of $1,045,396 compared with $654,002 the previous year.

Federal Screw Works and subsidiaries report 1936 net profit of $50,454 which compares with a net loss in 1935 of $122,614. No provision was made for surtax on undistributed profits.

McCord Radiator & Manufacturing Co. reports a net profit of $132,417 for 1936 after provision for surtax on undistributed profits. This compares with $250,680 net profit in 1935.

The net income of **Raybestos-Manhattan, Inc.**, was $1,691,496 in 1936 after providing $687,695 for depreciation, $405,602 for federal and state income taxes, $132,000 for the surtax on undistributed profits and the payment of $139,104 to employes at Christmas. Quarterly dividend of 37½ cents per share, payable March 15 to stockholders of record Feb. 26, has been declared.

UAW Organizes Toledo Pen Workers — Sitdown Begins

The United Automobile Workers Local No. 12 in Toledo has organized a group of workers in the Conklin Pen Co.'s plant and a sitdown strike of about half of the 115 employes is now in progress.

U.A.W. locals in Toledo have organized pickle workers, glove makers and rubber workers prior to this advance into the fountain pen industry.

Officials of the Conklin company told the workers in friendly negotiations that "the books are open" to them for inspection. They said they could not meet the wage demands of the union and still stay in business.

Fred B. Erb

Fred B. Erb, president and general manager of the Eaton-Erb Foundry Co. of Vassar, Mich., died Feb. 20 of a heart attack on board the S.S. New York two hours after the ship sailed from New York with members of the Detroit Athletic Club for a 19-day cruise to the West Indies.

Mr. Erb was born in Royal Oak April 30, 1886, and was graduated from the University of Michigan Engineering School in 1908. After having been with the Detroit Stoker & Foundry Co. and the Lakeside Foundry and the Elmira Foundry Co., he became foundry manager of the Packard Motor Car Co. in 1916. A year later he organized the Erb-Joyce Foundry Co. with B. A. Joyce.

Mr. Erb was a member of the National Founders Society, past president of the Detroit Foundrymen's Association and the American Foundrymen's Association.

Letters

to AUTOMOTIVE INDUSTRIES

Beginning with this issues, "Letters" will be a weekly feature of AUTOMOTIVE INDUSTRIES, *replacing the sporadic appearance of "The Forum."*

Click Clack

When a paragraph in your issue of Jan. 16 under the heading "Tick-Tock" caught my eye, I thought "here at last is someone calling attention to the annoyance of the noisy windscreen wiper." Alas, your contributor was merely writing about the more or less insignificant clock.

As a technical journalist who enjoys testing a large number of cars of all kinds, I am a great admirer of the American automobile and in particular am impressed by the remarkable progress which has been made in the direction of really silent running. It is, however, always a surprise that engineers who have successfully quietened the engine, the transmission and the all-steel body should appear to be completely baffled by that small but intensely irritating device—the windscreen wiper. Apart from noise, to anyone accustomed to the electrical type the variable speed of the suction wiper is an added irritant. All of which I suppose shows how touchy motorists are getting nowadays.

Maurice Platt,
Technical Editor, The Motor,
London, England.

Makers of a fine car have received numerous complaints from owners who are annoyed by the ticking of the clock and engineers are taking steps to still the "tick-tock," reported Joseph Geschelin in "Production Lines," AUTOMOTIVE INDUSTRIES, *p. 92, Jan. 16, 1936.*

Cylinder Wear

I read with great interest the report of the SAE paper read by Max Roensch of the Chrysler Corp. recently. My experience with butane may therefore be of interest to your readers.

Butane cannot wash oil off the cylinder walls, so that the principal cause of wear, namely, cold starting and warming up, is at once eliminated. It is a well-known fact that in stationary engines which run more or less continuously, wear is very little in relation to the number of hours run.

We recently dismantled an engine which had run on butane for 49,000 mi. and found the cylinder wear to be less than 0.001 in. This engine was running under heavy loads all the time, the combined weight of loaded truck and trailer being 68,000 lb. There is not the least doubt that, given a good design, clean oil and lack of dust, a butane operated truck should run 250,000 mi. without any attention whatever to the internal parts of the engine. In addition to this, valve grinding is unnecessary at any time and is only carried out when cylinders need grinding.

As far as butane operated trucks are concerned we have, of course, seen numerous cases where excessive wear has taken place on valves, pistons and cylinders but in practically every case we have been able to trace it to the employment of a bad design of carburetor or to the faulty adjustment of a good carburetor.

This question of cylinder wear is of extreme importance and Mr. Roensch's work helps very much towards producing an automobile with an engine that will never need any attention before the automobile becomes obsolete.

G. L. Holzapfel.
Holzapfel Instrument Co.

Mr. Roensch's SAE paper on cylinder wear was abstracted in AUTOMOTIVE INDUSTRIES, *p. 81, Jan. 16, 1937.*

:SLANTS:

BIGGEST GOLD MINE—*The automobile is one of the nation's biggest sources of taxes. If state taxes alone are considered, they add up to nearly a billion dollars in 1935, and were undoubtedly well over a billion in 1936. Retail sales taxes on automotive products in 1935 are calculated by the American Manufacturer's Association to total $48,802,000; car registration fees added $322,481,000, and gasoline and oil taxes amounted to $616,852,000, making a total of $988,000,000 from these three sources alone. This ignores entirely the immense property taxes on the many plants, warehouses, retail stores, etc., as well as all Federal taxes which in 1935 included manufacturer's excise taxes, income taxes and capital stock taxes, while in 1936 social security*

taxes, additional taxes on dividends and a tax on undistributed profits were also included.

SEEING FINGERS—*The "Blind Motor Wizard" of New Albany, Ind., never drove an automobile in his life. But he can tell in 20 minutes the exact value of the car you drive today, although he can't even see. Morgan Trinkle has been blind for 20 years but for the past eight years he has been the authorized DeSoto dealer for the New Albany territory. As his reputation grew for accurate appraisals by a unique "touch system" of his own, business boomed for Trinkle Motor Sales. Now he has added six associate DeSoto dealers in as many surrounding towns. The Indiana "wizard" denies he is blind, and says his fingers are ten "eyes" instead. They are the fingers of an expert motor mechanic, later trained to probe the secrets of any used car's exact condition with unfailing accuracy.*

WATER IN TIRES—*Engineers of the B. F. Goodrich Co., Akron, Ohio, now recommend partially filling farm tractor tires with water to improve traction and riding qualities. Apparently it is something of a problem to keep the pneumatic tires from bouncing around, thus losing their traction, when the tractor is pulling heavy equipment over uneven ground. Metal weights sometimes are attached to the wheels, but these are an additional expense and putting them on and taking them off is a constant inconvenience. The use of water is said to provide normal cushioning without rebound or bouncing of the tractor and other attached equipment. In freezing weather, solutions of calcium chloride ordinarily used for dust-laying on roads are recommended for this purpose.*

HEAVY DATES—*The Chicago Automobile Trade Association has sent its members a calendar with 19 important dates marked for 1937—dates on which they must pay taxes, either to the federal or state authorities.*

MILLION—*Domestic air line operators in the U. S. carried 1,020,931 passengers in 1936, an increase of 37 per cent over 1935.*

Andreau Designing Body For Eyston's New Racer

Jean Andreau, French streamlining expert, is working on body designs for the 3000 hp. car with which George Eyston proposes to make an attack on the world's land speed record, on the Bonneville Salt Flats, later this year.

Andreau has produced a number of very efficient streamlined bodies and holds patents on many of the features incorporated in his designs. On a production job he has got the air resistance coefficient down to 0.00085, and claims that for a special racing job he can reduce it to 0.00028. His cars are tested in the wind tunnel of the French State Aeronautical Institute, at St. Cyr, near Paris.

Little is known about Eyston's car other than the fact that it will have a 3000 hp. Rolls Royce aviation engine. He predicts a speed of 350 m.p.h.

Jan. Sales of Trucks Well Ahead of 1936

Truck and commercial car sales, which soared to an all-time record in 1936, are off to a brisk start in 1937, the R. L. Polk & Co. report discloses. Returns from 24 states list 22,027 truck sales in January. This is 13.08 per cent higher than for the same month last year and 11.61 per cent higher than in December, 1936, on the same number of states. This has led the Polk company to estimate January truck sales at 48,500, which is well ahead of the total of 43,760 sales in January, 1936—the record-breaking year.

Passenger car sales for 24 states total 130,675 which is 31.90 per cent higher than the same month last year and 15.76 per cent less than sales in December when the total for 24 states was 155,120. In passenger car sales the estimate for January is 280,000. January, 1936, sales totaled 215,782.

General Motors Wins Tax Deficiency Suit

The board of tax appeals has ruled that General Motors Corp. is not liable for a 1936 income tax deficiency of $15,342,369 which had been assessed when General Motors acquired all the assets of the Fisher Body Corp. The Internal Revenue Bureau claimed the sum on the ground that General Motors had realized a profit of $107,575,800 by not only acquiring the Fisher assets but a distributive share of the Fisher Body Corp. when it was liquidated. The board ruled that the exchange of stock which completed the deal was not a sale but a reorganization and gains or losses involved were not taxable.

Ford to Make Parts in Rural Plant at Ways, Ga.

Henry Ford has revealed plans to establish an industry at Ways, Ga., as a part of his broad program for this rural South Georgia community. "We'll havs an industry here," the Detroit automobile manufacturer said. "A draftsman is at work on preliminary plans. Automobile parts will be manufactured, but we haven't determined what kind. It all depends on what fits."

The Ways plants, Mr. Ford explained, will be closely affiliated with his newly-completed manual arts school there, and workers will have farms nearby. Sometime ago he predicted that industries of the future will consist of small units surrounded by small farms able to sustain them.

The plant will be located on Ford's Bryan County property, which includes about 70,000 acres and borders on both banks of the Ogeechee River, 18 mi. south of Savannah. Already completed on the property is a community house built by Ford, containing 20 guest rooms, a large ballroom, lounge, and dining room for use of the school children and their parents. On nearby Richmond Plantation is Mr. and Mrs. Ford's winter home, finished a few days ago and now in use.

Car Output Ahead of '36

(Continued from page 343)

pares with 377,306 in January last year. On the basis of 370,000 units estimated for February, the total for the first two months is 769,000 vehicles which compares with 677,000 in the corresponding months of 1936. A few companies which slackened pace early in February are again stepping up operations and are working on considerably higher March schedules.

Cadillac LaSalle reports that volume of orders for the 1937 series last week passed the total shipments for all of the 1936 models. Figures announced by Nicholas Dreystadt, general manager, disclosed shipments of current models to date, together with unfilled dealer orders on hand, have just crossed the 26,000 mark. The factory shipped 25,905 of the 1936 series. Cadillac LaSalle assembly lines resumed Feb. 15, after a shutdown of approximately a month. With the resumption of production the plant has been operating on a full time basis.

Chevrolet's New Series Of Dealer Conferences

A new system of dealer representation in important conferences held to determine general sales policy has been instituted by W. E. Holler, vice-president and general sales manager of Chevrolet. The first of a series of monthly meetings under the new system was held last week in Detroit, with one dealer from each of the nine Chevrolet regions representing groups of other dealers from his zone.

Following a general discussion of dealer problems in each area represented, the men returned to consult with fellow dealers. Next month, other dealers representing the company's nine regions will meet with executives in Detroit. The dealers attending the meetings throughout the year are chosen at monthly meetings held in each of the regions.

Negotiations Begin in Timken-Detroit Strike

The night shift of the Timken-Detroit Axle plant in Detroit started a sitdown strike late Tuesday, despite the fact the company had agreed to a conference Wednesday morning. According to the union, the workers were suspicious of the management's action in moving a large amount of materials from the plant on Tuesday, so decided to sit down immediately. Approximately 500 workers are reported to be in the plant.

The union demands include abolition of piece work; seniority; no discrimination; recognition of the United Automobile Workers union; agreement not to remove machinery during negotiations; minimum of 75 cents an hour for unskilled workers, 80 cents to $1.00 for semi-skilled and $1.00 to $1.25 for skilled workers; time and a half for over eight hours a day or 40 hours a week; double time for Sundays and holidays; five per cent bonus on weekly earnings for night work; and two weeks' vacation with pay.

Negotiations are in progress. Walter Reuther and Robert Kanter are representing the union.

Ford Builds Two Motor Ships for Inland Use

Two new canal motor ships, the largest of their kind ever built for service between the Great Lakes and the Atlantic Coast (via New York State Barge Canal), will be added to the Ford Motor Co.'s fleet in June, it has been announced.

The vessels, now under construction at River Rouge, are to ply between the Ford Rouge plant at Dearborn, Mich., and the company's plants at Edgewater, N. J., Chester, Pa., and Norfolk, Va. The first is scheduled to go into service about June 1, the second about June 15.

They will be the first freight carriers on the Great Lakes having no riveting in hull and deck construction. Welding is being used throughout. They will each be driven by two 600-hp. Diesel engines, and will carry crews of 18 men each. They will be 300 ft. long, and have 43 ft. beam and 20 ft. depth.

Crude Rubber Consumption Held Steady in January

Consumption of crude rubber by manufacturers in the United States for the month of January is estimated to be 48,744 long tons, which compares with 49,626 long tons for December. January consumption shows a decrease of 1.8 per cent under December and is less than one per cent above January a year ago, according to statistics released by the Rubber Manufacturers Association. Consumption for January 1936, was 48,506 (revised) long tons.

This organization reports imports of crude rubber for January to be 32,820 long tons, a decrease of 42.5 per cent under the December figure of 57,049 long tons, but is 4.9 per cent over the 31,292 long tons imported in January, 1936.

Total domestic stocks of crude rubber on hand January 31 are estimated at 201,915 long tons, which compares with Dec. 31 stocks of 218,844 long tons and 285,054 (revised) long tons on hand Jan. 31, 1936.

Crude rubber afloat to U. S. ports as of Jan. 31 is estimated to be 55,096 long tons which compares with 56,567 long tons afloat on Dec. 31 and 43,870 long tons afloat on Jan. 31 a year ago.

January reclaimed rubber consumption is estimated at 13,366 long tons, production 15,129 long tons and stocks on hand Jan. 31, 31,610 long tons.

Canadian Financing Gains

An increase of more than 49 per cent in volume and almost 58 per cent in value was shown in Canadian financing of motor vehicles last January. Motor vehicles financed totaled 7451, valued at $3,269,145, against 5045, at $2,070,388, in January, 1935. New motor vehicles financed numbered 2677, valued at $1,848,131, against 1524, at $1,054,002 a year ago, and used vehicles totaled 4864 at $1,421,014, compared with 3521, at $1,016,336, in January, 1936.

Business in Brief

Written by the Guaranty Trust Co., New York, exclusively for AUTOMOTIVE INDUSTRIES

General business activity showed a steady improvement last week, although full recovery from the effects of the strike has not yet been registered. Retail trade is expected to be benefited during the coming weeks by the wave of wage increases in various industries. Building activity is expected to show a greater gain during the first quarter of the year than was anticipated earlier.

The index of business activity compiled by the Guaranty Trust Co. for January stands at the preliminary figure of 89.0, as against 97.1 the month before and 77.7 a year ago. The current sharp decline follows four successive monthly advances and is largely the result of declines contrary to seasonal in the automobile industry, which was affected by strikes, and in bituminous coal production, which was reduced by the floods. The company's index of wholesale commodity prices on Feb. 15 stood at 84.1, the same as the month before, as compared with 69.3 a year ago.

Carloadings Gain

Railway freight loadings during the week ended Feb. 13 amounted to 691,618 cars, which marks an increase of 16,523 cars above those in the preceding week, a gain of 60,523 cars above those a year ago, and a rise of 109,949 cars above those two years ago.

Floods Affect Chain Stores

The preliminary index of store chain sales compiled by the Chain Store Age for January was 105.5, as compared with 113.0 for December and 96.5 a year ago. The current decline is attributed to unseasonable weather and the interruption of trade in the flood areas.

Department Stores Sales Steady

Department store sales in January, according to the Board of Governors of the Federal Reserve System, declined seasonally. The adjusted index, however, was at the same level as in the preceding month and was one point below that for November.

Fisher's Index

Professor Fisher's index of wholesale commodity prices for the week ended Feb. 20 stood at 91.0, as compared with 90.7 the week before and 90.4 two weeks before.

Federal Reserve Statement

The consolidated statement of the Federal Reserve banks for the week ended Feb. 17 showed no changes in holdings of discounted bills, bills bought in the open market, and government securities. Money in circulation declined $9,000,000, and the monetary gold stock increased $16,000,000.

40 Years Ago

with the ancestors of AUTOMOTIVE INDUSTRIES

Minor Mention

The Hyatt Roller Bearing Co. are equipping calendar rolls in several large paper mills with roller bearings carrying loads of from 5000 lb. to 15,000 lb.

The Electric Carriage & Wagon Co., 140 West Thirty-Ninth St., New York, have applied to the board of alderman for a license to let their electric hansoms for hire within the city limits.

The American Motor Co., Havemeyer Building, New York, have perfected a new sparking device, consisting of a spark coil without a make-and-break contact inside the cylinder to get out of order.

—From *The Horseless Age*, February, 1897.

Automotive Metal Markets

Speculative Increase in Non-Ferrous Prices Feature of Markets; Steel Production Costs Rise

By William Crawford Hirsch

When the price of copper goes up a cent a pound, approximately $2,000,000 is added to the automobile manufacturing industry's annual copper bill. Such an advance from 13 to 14 cents was recorded on Feb. 16. From the outset the 14 cents quotation was nominal, producers holding aloof and speculators asking a premium over that level. At the beginning of this week's business, producers refrained from revising their price upward, adhering to the 14-cent quotation while consumers could not uncover any metal at their bid price of 15 cents. Within a week the market has advanced by more than 2 cents adding approximately $4,000,000 to the annual copper bill of automotive consumers.

Under the influence of the upsurge in copper prices, Straits tin rose from 53¾ cents at the close of last week to 55.60 cents on Tuesday. Lead and zinc, following a rise of $5 a ton in the former's price and of $4 a ton for the latter on Friday, rested on their oars at Tuesday's reopening of the market. Copper is now selling at approximately 65 per cent over last year's average levels. Tin has risen from 48 cents a year ago to 55.60 cents. Lead has advanced nearly 50 per cent and zinc more than 40 per cent.

The spectacular advances of the last few days had their origin on the London Metal Exchange, where, according to latest advices, reaction set in on Tuesday when the government threatened to clamp down the lid on further speculative maneuvers. One of the "independent" copper fabricators has asked that, as a means of restoring normalcy in the copper market, Congress should not extend the import tax of 4 cents a lb. due to expire on June 30. Much of the buying of secondary copper in the United States in recent weeks is attributed to the ravenous appetite of European speculators for metals of a war character and some of the buying on the Commodities Exchange is also believed to have been for foreign account.

Under the spell of the hectic activities of the "bulls" in the non-ferrous metal markets there has also been a revival of talk of advances in second quarter prices for certain descriptions of steel, sheets coming in for particular mention in this connection. Continuing scarcity of supplies of scrap, much of which has of late again found its way to Europe, is pointed to as one of the reasons for higher production costs to steel mills. There is also talk of a further advance in steel mill wage scales.

Pig Iron—Activity consists chiefly of the rushing of shipments to automotive foundries that have resumed full operations and have iron coming to them on previous contracts. High scrap prices furnish a prop for predictions of advances.

Aluminum—While the price of aluminum remains unchanged, the rise in the copper market has imparted additional strength to quotations.

Copper—The market was idle on Tuesday, bids of 15 cents finding no takers.

Tin—At the close of trading on the London Metal Exchange on Tuesday, spot Straits tin was quoted at 249 pounds 10 shillings, 9 pounds higher than at the close Friday and 15 pounds 10 shillings higher than on Thursday. The London close on Tuesday for the long ton was the equivalent of about 61 cents per lb. The market in New York, however, was content to call the spot Straits quotation 55.60 cents and to await further developments.

Lead—Strong and active.

Zinc—Firm and quiet.

Willard to Build Dallas Plant

Construction will be started in Dallas, Tex., soon by the Willard Storage Battery Co. of Cleveland of a plant for the manufacture of storage batteries. It will have a capacity of 1000 batteries daily, it was stated by P. H. Voth, equipment engineer for the company. It will be the largest storage battery manufacturing plant west of the Mississippi River, he said.

British Steel Faulty

Car Makers Complain of Losses from Inferior Sheets

The quality of certain steels supplied automobile manufacturers by British steel mills has been the subject of a complaint addressed to the British Iron and Steel Federation by the Society of Motor Manufacturers and Traders, Ltd., it was revealed by Sir William Firth, chairman and managing director of Richard Thomas & Co. Ltd., one of the nation's most prominent steel concerns, at an extraordinary general meeting of his company.

Explaining to stockholders that the meeting had been called to approve an increase of capital, Sir William Firth outlined plans to improve the company's production facilities by the erection of a continuous hot strip mill with cold reduction, under license of the American Rolling Mill Co.'s patented process. It is understood this will be the first mill of the kind in Great Britain.

"Apart from all question of price and productive capacity," stated Sir William, "the motor industry is also seriously concerned regarding the quality of certain British steels. In this direction the problem is most acute in the case of sheet steels used in the production of motor car bodies . . . Continual trouble is caused by the quality of the British material, the temper of which is so inferior that fractures frequently occur, interrrupting the steady flow of sheets through the presses.

"These stoppages are so frequent and the breakage sometimes so bad that the manufacturer is involved in serious

(*Turn to page 378, please*)

Motorcycle Production Up in Great Britain

According to a survey of the motorcycle industry published in *Engineering* of Jan. 22, Great Britain last year produced 69,500 motorcycles, the greatest number since 1932. There has been a gradual growth in production since 1932, when it fell to a low figure of 58,000, as compared with a peak production of 162,000 in 1927. Great Britain also retains the leading position in the motorcycle export field. Considering only the five leading exporting countries, British motorcycle exports in 1936 constituted 46.3 per cent of the total on the basis of numbers, and 58.5 per cent on the basis of value. American motorcycle exports constituted 10.3 per cent on the basis of numbers and 16.5 per cent on the basis of value, while German exports represented 34.3 per cent on the basis of numbers but only 14.9 per cent on the basis of value. The other two important motorcycle exporting countries are Belgium and France, which rank in the order named. Figures of motorcycle registration are available only for 1935. In that year Germany headed the list with 1,025,000, approximately 100,000 of these being in use by Government departments. France had 538,433, Great Britain 512,000, Italy 135,287, and the United States 100,756. Australia had nearly as many motorcycles as the United States.

Further Additions to Ford's British Plant Are Under Way

Although the additions to the Ford plant at Dagenham, near London, commenced last year, are not yet completed, it is announced that further extensions giving another 100,000 sq. ft. of factory space have been decided upon and will be rushed to completion as quickly as possible.

Employment by Ford in England has almost trebled since 1932. In June of that year when the company transferred its activities from Manchester to Dagenham, there were 4054 employes; now there are approximately 11,500 and more will be taken on when the existing and projected building programs have been completed.

Big Plane Order for Canada

Fleet Aircraft Corp., Fort Erie, Ont., has booked orders for 266 training planes for the Argentine and the Portuguese Governments.

DELMAR G. ROOS, technical adviser to the Studebaker Corp., has sailed for Europe, where he will spend three months visiting England, France and Germany to make a study of recent developments of the automotive industry in those countries.

C. E. DALTON, director of truck sales for the Chrysler Corp., export division, has sailed for Central American countries, where he will hold conferences with distributors of Chrysler-built trucks.

Paul E. Friend **D. D. Robertson**

PAUL E. FRIEND has been promoted from the position of assistant chief engineer to be chief engineer of the Wilkening Manufacturing Co., Philadelphia. Mr. Friend has been with Wilkening since his graduation from the University of Pennsylvania in 1932.

D. D. ROBERTSON has resigned as chief engineer of the Wilkening Manufacturing Co., Philadelphia, to join the Spicer Manufacturing Co., Toledo, as sales engineer. In the nine years he was with Wilkening,, Mr. Robertson has attained prominence in piston ring development work.

HARRY A. MILLER, whose racing cars have been famous on American tracks since 1911, has accepted an appointment on the staff of the Gulf Oil Corp. and will begin a series of practical experiments in the use of gasoline and other petroleum products.

CLAYTON W. BUTTERFIELD has been appointed advertising and merchandising manager of Bendix Products Corp., South Bend, succeeding Neal Taylor Hall.

Bantam Bearing Changes Company Designation

The Bantam Ball Bearing Co. of South Bend, Ind., has changed its name to more clearly describe its present day production. The new name is the Bantam Bearings Corp.

When the original company was organized 40 years ago the entire business was devoted to the production of ball bearings. Later Bantam pioneered in roller bearing manufacture. Since that time the acceptance of this type of bearing has grown to the point where over 90 per cent of the company's business is now devoted to the manufacture of taper roller and straight roller bearings.

Bantam Bearings Corp. is now a subsidiary of the Torrington Co. of Torrington, Conn.

Albert R. Hanson

Albert R. Hanson died Feb. 18 at Rogers City, Mich., at the age of 54. He was born in Monroe County, Ohio, and moved to Detroit in 1910, where he engaged in the automobile and realty businesses, and was at one time general manager of the Chalmers Motor Car Co. Mr. Hanson suffered severe injuries in the Kerns Hotel fire in Lansing in 1934 from which he never fully recovered.

Autocruiser Opens N. Y. Office

The Autocruiser Co. of America, Inc., Baltimore, Md., has opened an office and showroom in New York, at Broadway and Sixty-first Street. Several models of its trailer coaches will be exhibited there. Frank Dale, formerly with the B. F. Goodrich Co. and sales manager of the National Oil & Supply Co., has been named New York manager.

Fast Drivers Have More Accidents

Connecticut Investigation Also Shows that Average Driver Goes Faster in Winter

In a study of motor-vehicle speeds on Connecticut highways, made for the Committee on Transportation of Yale University, over a period of six months the license number of each passing car was recorded together with its speed, and a high-speed group was made up consisting of cars traveling at over 50 m.p.h. The accident records of these cars were investigated and compared with those of an equal number of moderate-speed cars (cars traveling at between 35 and 45 m.p.h.). Disregarding the severity of the accidents and the responsibility for them, it was found that 30 per cent more of the high-speed vehicles had accident records than those in the moderate-speed group, and that the high-speed drivers who had accidents had more of them, so that the total exceeded that of the moderate-speed group by 45 per cent.

The study referred to was made in 1933 and 1934, with an Eno speed recorder. The average observed speed for all vehicles was 39.2 m.p.h.; that of all passenger cars, 40.0 m.p.h.; all Connecticut passenger cars, 39.6 m.p.h.; "foreign" passenger cars, 42.4 m.p.h.; all passenger cars at night, 36.6 m.p.h.; trucks, 33.8 m.p.h.; buses, 41.6 m.p.h.

Average speeds were higher in winter than in spring or summer, and this in spite of the fact that nearly 25 per cent of the winter day-time observations were made in bad weather. Winter speed observations made in good weather exceeded those made in summer by 2.8 m.p.h. on two-lane concrete roads, 5.0 m.p.h. on four-lane concrete, and 4.7 m.p.h. on macadam roads. The difference between the speeds of travel in summer and winter appears to be due to the presence of slow-moving pleasure traffic on the roads in summer, rather than to any effects of the weather.

From the viewpoint of vehicle speeds, Saturday can be classed as a typical week day. Average Sunday speeds were found to be 3-4 m.p.h. lower, and there was no distinct increase in speed in the late afternoon, such as is typical of week-day commuter travel.

There was no significant difference between the speeds of men and women drivers. It was found than an unaccompanied driver traveled somewhat faster than one with passengers, and that whereas both of these classes traveled somewhat more slowly in summer than in winter, the "lone" drivers slowed down only 2.9 m.p.h. in summer, while drivers with passengers decreased their speed an average of 4.4 m.p.h.

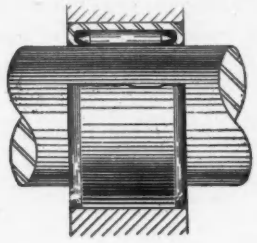
Tire Industry Plans Change in Guarantees

The tire industry is moving to eliminate monthly tire guarantees with an immediate return to a standard warranty guaranteeing tires only against defects in workmanship or material. It is believed mail order houses and oil companies, are planning similar action. The move will save upwards of $10,000,000 annually through the elimination of unfair adjustments. Dealers are being notified to discontinue immediately 12 and 18 months' guarantees.

Japanese Firm to Begin Making Ethylene Glycol

The Asahi Electro-Chemical Co. of Japan, a subsidiary of the Furukawa Gomei Kaisha, is preparing to start the manufacture of ethylene glycol for use as an anti-freezing agent. It will utilize the patent held by the War Minister, which was developed by Mr. Kozo Kashima, formerly chemical engineer of the Army's scientific laboratory, and now being exploited by the Mitsui Mining Co. and Nippon Soda Co.

This new bearing is



Easy To Install

SINGLE COMPACT UNIT REQUIRES SMALL SPACE—SAVES TIME IN ASSEMBLY. THE IDEAL BEARING SHOULD HAVE THESE FEATURES

DUE to its unit construction and the small space which it requires, the new Torrington Needle Bearing is surprisingly easy to install.

The use of loose rollers around a shaft is not new, but formerly assembly was complicated by the number of individual rollers which were difficult to handle and were apt to become lost on dis-assembly. The Torrington Needle Bearing overcomes these disadvantages. It is a complete self-contained unit—a full complement of rollers in a single retaining shell. This unit construction greatly simplifies handling, makes lubrication easier, insures a clean job, speeds assembly operations and facilitates dis-assembly.

Because of the relatively small diameter of the rollers and the thin tough shell of the retaining race, very small space is required for installation—often less than for a bronze bushing. Moreover, because of the unusually high radial load capacity of the Needle Bearing, due to the many lines of contact, it is possible to carry greater loads with smaller diameter shafts. The size and design also simplify construction of surrounding members. Smaller housings may be used with consequent reduction in size, weight and cost.

An accurately made shaft is required, of course, as it serves as the inner race for the bearing and must be hardened and ground to correct size. For applications where an unhardened shaft is desired, inner races are available.

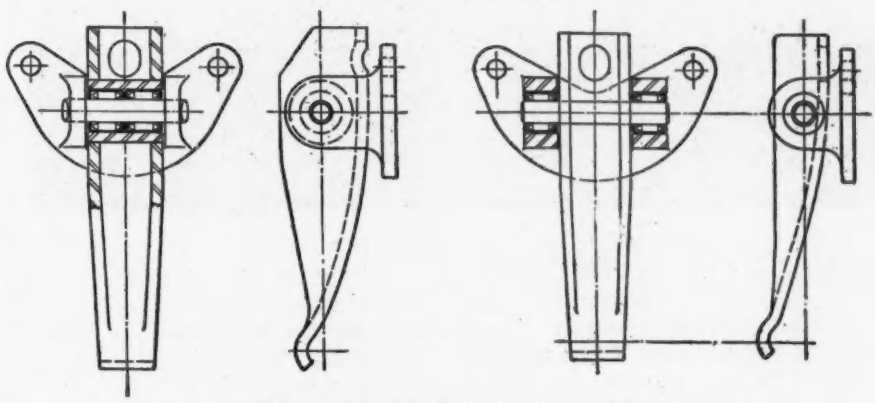
A Single Operation

The housing bore is simply machined to proper diameter to take the bearing and provide assembly tolerances between limits of .0005" and .0029" as desired. Customary good shop practice will answer these simple requirements. The Torrington Needle Bearing is simply pressed into the housing bore. A 15° angle concave punch with pilot of shaft size is recommended for assembly. An arbor press is highly suitable.

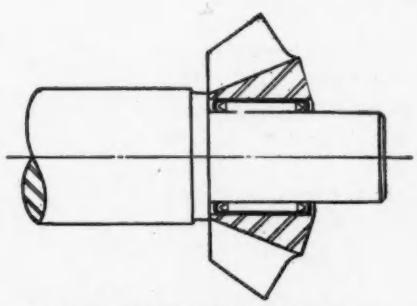
Like every other Torrington product, the new Torrington Needle Bearing is built to give continuous economical service.

The experience of Torrington's engineering staff is at the disposal of manufacturers interested in the use of the Needle Bearing in their products. A Torrington representative will gladly discuss the advantages and cooperate in developing designs and laying out applications.

CLUTCH RELEASE LEVER



Typical installations of the Torrington Needle Bearing are characterized by simplicity of design



DIFFERENTIAL PINION GEAR

FEATURES OF THE TORRINGTON NEEDLE BEARING

Small Size — **Ease of Installation**

Efficient Lubrication — **Low Cost**

High Radial Load Capacity

Further information and data on the new Torrington Needle Bearing, the types and sizes available for immediate shipment from stock, etc., available on request. Write for *Catalog No. 7.*

The Torrington Company
ESTABLISHED 1866
Torrington, Conn., U.S.A.
Branch Offices in all Principal Cities

TORRINGTON
NEEDLE BEARING

Calendar of Coming Events

SHOWS

Automobile Show, Berlin, Germany, Feb. 20-March 7
Hungary, International Automobile, Motorcycle and Motor boat Exposition, Budapest .....March
France, Automobile Section, Lyons Fair, Lyons .....March 4-14
France, Automobile Section, Com'l. and Industrial Fair, Lille .....March 3-18
Austria, Automobile and Motorcycle Salon, Vienna .....March 7-13
Holland, Automobile Section, Royal Netherlands Fair, Utrecht ..March 9-18
Switzerland, 14th International Exposition, Automobiles, Motorcycles and Bicycles, Geneva .....March 12-21
Algiers Fair, Automobile Section, Algiers .....March 20-April 4
Portugal, 11th Automobile Salon, Porto March 27-April 5
Yugoslavia, 14th Automobile Salon, Zagreb .....April 17-26
Illinois Automotive Ass'n, 4th Annual Show and Maintenance Exhibit, Navy Pier, Chicago .....Apr. 24-28
Poland, Automobile Salon—16th International Fair, Poznan .....May 1-10
Norway, Automobile Salon—Oslo..May 7-10
Second Annual Automotive Maintenance Show, San Francisco..May 20-23
Morocco, Automobile Section, Tangier Fair, Tangier .....June
France, Automobile Section, Bordeaux Fair, Bordeaux .....June 13-28
Belgium, First International Aeronautical Salon, Brussels ....June 18-30
Fourth ASTM Exhibit of Testing Apparatus and Related Equipment, New York .....June 28-July 2
Poland, Automobile Salon (Foire Orientale), Lwow .....Sept. 1-15
France, 31st International Automobile Salon, Paris .....Oct. 7-17
Great Britain, 31st International Automobile Exposition, London..Oct. 14-23
National Automobile Show, New York, Oct. 27-Nov. 2
Italy, 10th International Automobile Salon, Milan .....Oct. 28-Nov. 8
Great Britain, 13th International Commercial Automobile Exposition (trucks and buses), London..Nov. 4-13
Chicago Automobile Show.....Nov. 6-13
Great Britain, 36th Scottish International Automobile Exposition, Glasgow .....Nov. 12-20

CONVENTIONS AND MEETINGS

American Society for Testing Materials, 1937 Regional Meeting and Committee Week, Palmer House, Chicago, March 1-5
Sixth Annual Welding Conference and Exposition, Ohio State University, Columbus, Ohio .....March 3-5
S.A.E. National Aeronautical Meeting, Washington, D. C. .....March 11-12
Export Managers Club, 20th Anniversary Get-Together, Hotel Pennsylvania, New York .....March 30
S.A.E. Regional Transportation and Maintenance Public Utility Meeting, Baltimore, Md. .....April 15-16
International Association for Testing Materials, Second International Congress, London, England.April 19-24
S.A.E. National Tractor and Industrial Power Meeting, Peoria, Ill..April 21-23
41st Annual Convention and Exposition of the American Foundrymen's Association, Milwaukee .....May 3-7
S.A.E. Summer Meeting, White Sulphur Springs, W. Va. .....May 4-9
American Society of Mechanical Engineers, spring convention, Detroit, May 17-21
American Petroleum Institute, Mid-Year Meeting, Colorado Springs, Colo. .....June 1-3
Second World Petroleum Congress, Paris, France ....late May—early June
Automotive Engine Rebuilders Association, 15th Annual Convention, Chicago .....June 21-24
American Society for Testing Materials, 40th Annual Meeting, New York, June 28-July 2
S.A.E. National Aircraft Production Meeting, Los Angeles, Calif....Oct. 7-9
S.A.E. Annual Dinner, Commodore Hotel, New York .....Oct. 28

CONTESTS

Indianapolis Speedway, 500-Mile International Sweepstakes .....May 31
Pan American Cup Race, Roosevelt Raceway .....July 5
Roosevelt Raceway, 400-Mile George Vanderbilt Cup Sweepstakes....Sept. 6
Los Angeles, 500-Mile International Sweepstakes .....Nov. 28

New Oldsmobile Building To Facilitate Driveaways

Construction will be started at once on a new addition to the Oldsmobile plant, C. L. McCuen, general manager of the Oldsmobile division of General Motors, announced. The new building, a one-story structure 85 by 250 ft., is to be erected at the cornor of Olds Avenue and Logan Street and will be known as the retail driveaway building. This latest expansion is necessitated by the big increase in the number of people who place their orders with their local dealers and come to Lansing to drive home their new cars.

The new building is especially designed and equipped to facilitate this service to out-of-town customers. In addition to providing storage space for 80 cars, the new building will house the driveaway clearing office. and also comfortable waiting rooms for purchasers.

Heavier Cuts at Higher Speeds

Operation: Surface Milling.
Machine: Brown and Sharpe, No. 22 Plain Milling Machine.
Material: Machining Steel.
Stock Removal: .060 inch.
Spindle Speed: 108 R.P.M.
Cutting Speed: 100 feet per minute.
Feed: 11 inches per minute.
Cutting Lubricant: 1 part Sunoco to 25 parts water.

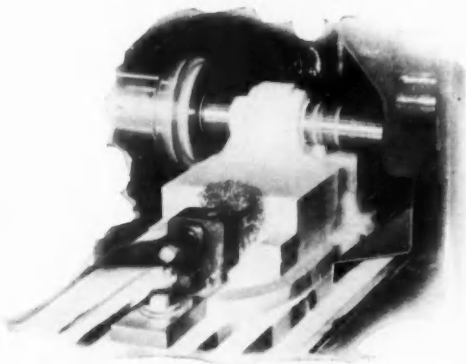
Courtesy of
Brown and Sharpe Manufacturing Co.
Providence, R. I.

FOR difficult "hogging" out of stock in rough cuts, and to help achieve maximum production in milling operations, Sunoco has long been the choice of leading machine shops.

On the finer work, continuous accuracy and superior finish are assured with Sunoco.

Your cutters, aided by Sunoco, will produce more pieces per cutter grind, and the cutter cost per piece will thus be reduced. Cutters will not burn, chips will not seize, and the cuts will be clean and even.

Under actual operating conditions, Sunoco has shown time and again that its lubricating and cooling characteristics help milling cutters give the quantity and quality of production which modern machine shop practice demands.



Operation: Climb Milling.
Machine: Brown and Sharpe No. 12 Plain Milling Machine.
Material: Tool Steel.
Stock Removal: .250 in.—.375 in.
Spindle Speed: 95 R.P.M.
Cutting Speed: 85 feet per minute.
Cutting Lubricant: 1 part Sunoco to 25 parts water.

SUN OIL COMPANY, PHILADELPHIA, PA., U. S. A.

Subsidiary Companies:
Sun Oil Co., Ltd., Montreal, Toronto • British Sun Oil Co., London, England

SUNOCO
EMULSIFYING
CUTTING OIL


When it comes to

wringing the cost out of parts

CALL IN A BETHLEHEM METALLURGIST

A NEW part for next year's car, and a question to be answered: What steel will give satisfactory results most economically? When such questions arise, call in a Bethlehem metallurgist. He will bring a comprehensive understanding of the properties of all steels, alloy or carbon; an insight into the possibilities of new and special steels not yet on the market; a sound working knowledge of how the various steels have been used and with what results.

There are dozens of places where a little can still be squeezed out of manufacturing costs. A different grade of steel that will be equally satisfactory—a change in heat treatment—a stronger steel that will permit smaller size—a different grain structure that will save on machining costs.

These are the important points that Bethlehem metallurgists look for, as part of Bethlehem's service to you. Call on these men as often as you wish; certainly there is nothing to lose and everything to gain by asking for their suggestions.

BETHLEHEM PRODUCTS
FOR THE
AUTOMOTIVE INDUSTRY

★ ★ ★

SHEETS AND STRIP—
HOT AND COLD ROLLED

SPECIAL-PURPOSE
CARBON STEELS

ALLOY STEELS

SILVERY MAYARI
ALLOY IRON

TOOL STEELS

STEEL WIRE

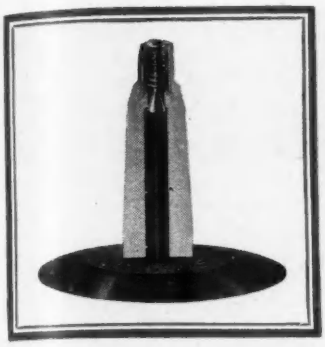
BARS AND SPECIAL
ROLLED SECTIONS

BOLTS AND NUTS

BETHLEHEM STEEL

BETHLEHEM STEEL COMPANY

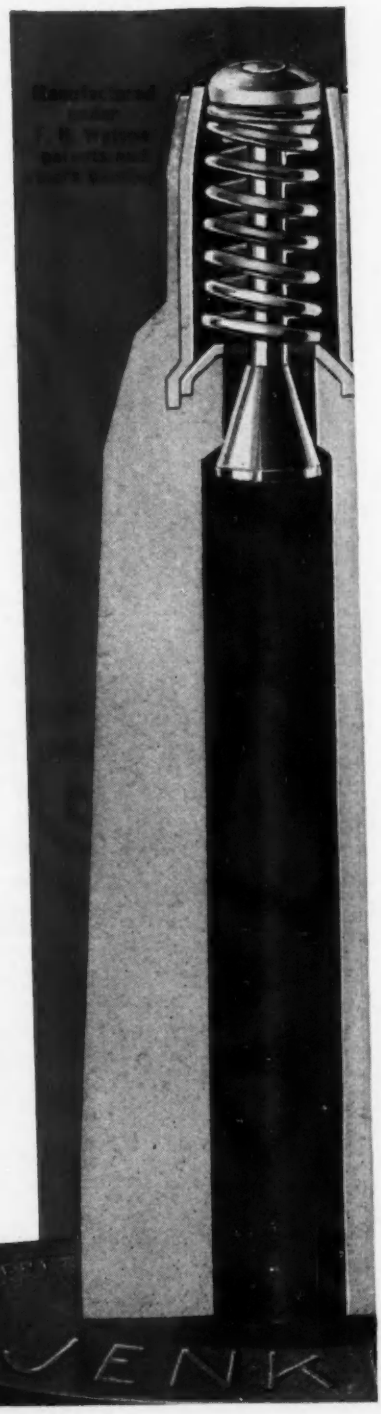

It's a Purolator
PUROLATOR
Whether the job is to keep clean oil flowing through the circulation systems of passenger cars, busses, tractors or trucks...whether to insure the constancy and quality of Diesel fuel or to furnish specially engineered installations for cars not filter equipped at the factory, the statement, "It's a Purolator" is a statement of confidence throughout the automotive industry. Purolators have stood the test of time and progress, and continue to meet the most rigid requirements of automotive engineers. Motor Improvements Inc., Newark, N. J., makers of
PUROLATOR
The Oil Filter



JENKINS MAKES NO COMPROMISE WITH VALVE TROUBLES

GUARANTEED ABSOLUTELY TIGHT FOR TUBE LIFE

For the manufacturer, distributor and retailer of tires — a clean, friendly, lasting sale. For the car owner — more mileage, greater safety and a welcome freedom from valve troubles. Check over these sales and satisfaction points. No other valve can lay claim to them. Each is new and important. See why Jenkins is the one valve that has progressed with the automotive industry.



PERFORMANCE

Positively leakproof. No caps to lose. No internal parts to replace. Prohibits entry of dirt and water. Fits standard inflation equipment.

DURABILITY

The tough, durable rubber stem encloses sturdy non-corrosive parts. The whole valve is fully guaranteed to outlast the tube.

SAFETY

No ripped tube or blowout from puncture. Flexible valve stem pulls through rim hole. Slow deflation thus allows control of car.

ECONOMY

Positive tightness maintains proper inflation and long tire life. No repeated parts or replacement costs. The first valve cost is last.

PROGRESSING WITH THE AUTOMOTIVE INDUSTRY

JENKINS RUBBER CAPLESS TIRE VALVE

JENKINS BROS.

New York • Chicago • Philadelphia • Boston • Factory: Bridgeport, Conn.

JENKINS BROS., LTD.

Montreal London

In 2 short months

FROM OCTOBER 23 to DECEMBER 23

HOLDEN
Hy-Speed Case

Registers a Smash hit!

FIRST INTRODUCED—

October 23, 1936, at the Metal Congress at Cleveland. A product of Holden Research. The result of 700 experiments. Used in producing secondary Hardness on High-Speed Tools.

NOW USED BY—

15 Small Tool Manufacturers.
6 Motor Car Manufacturers.
2 Prominent Brass Companies.
30 Miscellaneous Manufacturers.

TYPICAL RESULTS—

Life of tools used for machining S.A.E. 1045 steel, INCREASED 150 per cent *in a large motor plant.*

Life of dies for drawing brass—INCREASED 200 per cent — *improved finish with* NO *scoring.*

Life of a forming tool—INCREASED 5 Times former life and still running.

IF YOU ARE INTERESTED—

The life of YOUR High-Speed Tools can be *increased* from 100 per cent to 500 per cent, provided you cooperate with Holden Research.

We will prove it by treating one specific tool for a definite application.

TIE this TAG to a TOOL
with the following information

(1) Use of tool.....
(2) Speed of cut.....
(3) Material to be machined — Ferrous or Non-Ferrous
.....
(4) Brinell or Rockwell Hardness.....
Your name and address.....
.....

Q-16

A. F. Holden Company, Engineers
DEVELOPERS OF HEAT TREATING BATHS
New Haven, Conn.

PARKER PROCESSING *adds* QUALITY and Salability

Customers turn away from products showing the slightest hint of rust. Dealers lose their enthusiasm for products that show traces of corrosion.

And yet, often before they have moved off dealers' floors, often while they are still in transit, *often before they have even left the shipping platform,* many metal products lose salability because rust or corrosion has begun its ugly work.

Parker Rust-Proofing Processes are the dependable, accepted method of protection against this great sales hazard. They are known to salesmen, dealers and consumers as proved protection against rust.

Manufacturers use Parker Processes because they find it Profitable to do so. Salesmen sell Parker-protected products because they close sales easier and consumers buy them because they appreciate the protection from rust.

Manufacturers may secure complete information about Parker Processes by writing direct to this company.

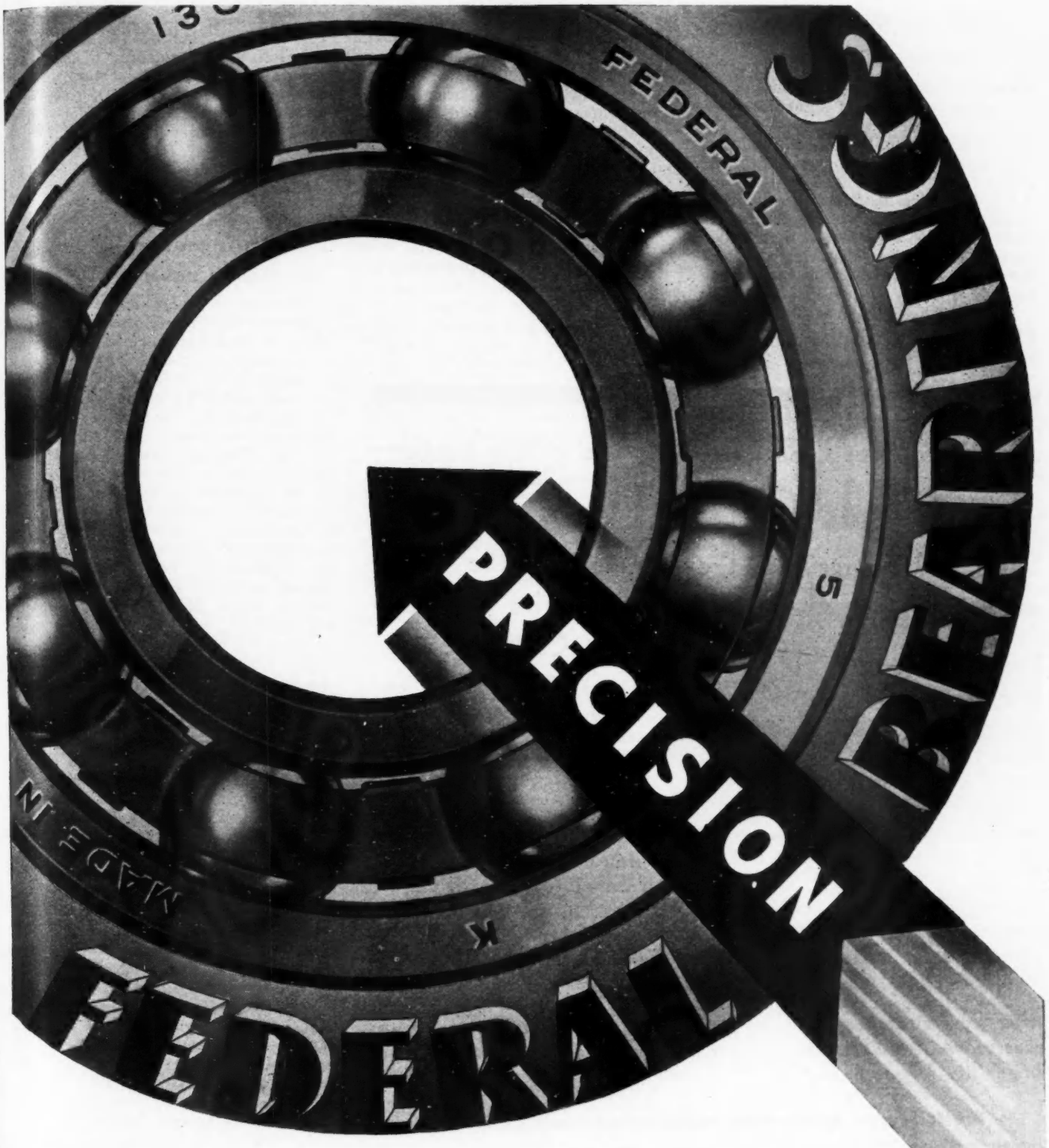
PARKER RUST-PROOF COMPANY, 2178 E. MILWAUKEE AVE., DETROIT, MICH.

Ask for These Books

For more than 22 years, this company has devoted its entire time, talent and energy to the improvement of rust-proofing methods. New books describing the Parker Processes are available to manufacturers and technical men. Send for your copies.

PARKER *Processes* **CONQUER RUST**

BONDERIZING · PARKERIZING



YEAR after year . . . manufacturers of all types of equipment select FEDERALS. This continued loyalty proves that the performance of FEDERAL BALL BEARINGS leaves nothing to be desired under the most difficult load and speed conditions. This consistent performance results from precision—precision in every detail of workmanship, design and materiai.

THE FEDERAL BEARINGS CO., Inc.
POUGHKEEPSIE, N. Y.
Makers of Fine Ball Bearings
Detroit Sales Office: 2608 Book Tower
Chicago Sales Office: 120 N. Peoria St.
Cleveland Sales Office: 402 Swetland Bldg.

British Steel Faulty

(*Continued from page 362*)

trouble and expense, not only because of the press being out of action for considerable periods, with consequent delays in delivery to the assembly plants, but also because of the very heavy and costly scrap wastage.

"This trouble has been so marked in recent months that some motor manufacturers have been forced to consider importing American material, although the delivered prices are somewhat higher."

Not long ago, Lord Nuffield, chairman of Morris Motors, Ltd., criticized the government and the federation's policy of protecting British steel manufacturers by imposing a duty on imports of foreign steel, and he pointed out that any rise in the price of automobile sheets steels would reduce the capacity of British automobile manufacturers to compete in foreign markets.

Auburn Officials Re-elected

At the annual meeting of the stockholders of the Auburn Automobile Co., E. L. Cord was reelected chairman of the board, and R. H. Faulkner was reelected president and general manager. The following other officers were also reelected: A. H. McInnis and G. G. Johnson, vice-presidents; R. S. Pruitt, general counsel and secretary; W. H. Springer, treasurer; B. O. Snepp, assistant treasurer; and Gordon Hersh, assistant secretary. The board of directors consists of E. L. Cord, Roy H. Faulkner, A. H. McInnis, G. G. Johnson, and R. S. Pruitt.

Pontiac Announces Personnel Changes

Changes in sales department personnel of Pontiac Motors, announced by C. P. Simpson, general sales manager, include the transfer of R. A. Dickinson from the office of H. J. Klingler, general manger, to the managership of the business management department, superseding P. J. Dean, resigned.

E. R. Pettengill was promoted from the position of car distributor to the place vacated by Dickinson. B. G. Manley has been made car distributor. B. A. Hobel, formerly manager of the central office organization and analysis department, has been appointed organization and office manager of the central region. J. E. Nelson, formerly his assistant, succeeds Hobel.

Japanese Company to Import Krupp Diesels

The Japan Diesel Industry Co., which recently took over the Second Japan Diesel Co., has decided to import Krupp engines from Germany until its new plant at Kawaguchi is completed, a report to the Bureau of Foreign and Domestic Commerce states. The new plant is expected to be in operation in April, but some time will be spent in experimental work. Meanwhile complete cars equipped with Krupp Diesels, as well as Krupp engines, will be imported for sale in Manchukuo and China as well as Japan.

The Tokyo Gas and Electric Co., of Omeri, Tokyo, one of the leading Japanese automotive manufacturers, has applied for a patent on a new type Diesel engine, it is reported. The engine is a six-cylinder unit and water-cooled, with a special heating device.

Lubricating Grease Mfrs. Association Changes Name

The name of the National Association of Lubricating Grease Manufacturers, Inc., has been changed by a vote of its members to the National Lubricating Grease Institute, it has been announced by D. S. Hunter, executive secretary, at the headquarters in Cleveland.

Membership, heretofore restricted to lubricating grease manufacturers, has now been made available on an associate basis to companies whose products or services are used in the manufacture, distribution or application of lubricants.